UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 3 TO FORM S-1 ON FORM S-3

REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

BIGBEAR.AI HOLDINGS, INC.

Additional Registrants Listed on Schedule A Hereto (Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 7372 (Primary Standard Industrial Classification Code Number) 85-4164597 (I.R.S. Employer Identification No.)

6811 Benjamin Franklin Drive, Suite 200 Columbia, Maryland 21046 (410) 312-0885

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Julie Peffer Chief Financial Officer 6811 Benjamin Franklin Drive, Suite 200 Columbia, Maryland 21046 (410) 312-0885

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to: Robert M. Hayward, P.C. Alexander M. Schwartz Kirkland & Ellis LLP 300 North LaSalle Chicago, IL 60654 (312) 862-2000

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box:

If this Form is filed to registered additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Non-accelerated filer

Smaller reporting companyEmerging growth company

Accelerated filer

 \mathbf{X}

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. \Box

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission acting pursuant to said section 8(a), may determine.

Schedule A

Exact Name of Additional Registrants	Jurisdiction of Incorporation or Formation	Principal Executive Offices	Primary Standard Industrial Classification Code Number	I.R.S. Employer Identification No.
BigBear.ai Intermediate Holdings, LLC	Delaware	6811 Benjamin Franklin Drive, Suite 200 Columbia, Maryland 21046	7372	85-1242144
BigBear.ai, LLC	Delaware	6811 Benjamin Franklin Drive, Suite 200 Columbia, Maryland 21046	7372	85-1259867
Pangiam Purchaser, LLC	Delaware	6700 Broken Sound Parkway, NW Boca Raton, FL 33487	7372	85-4164597
Pangiam Intermediate II Holdings, LLC	Delaware	6700 Broken Sound Parkway, NW Boca Raton, FL 33487	7372	85-3350961
Pangiam Holdings, LLC	Delaware	6700 Broken Sound Parkway, NW Boca Raton, FL 33487	7372	85-3278969
Pre, LLC	Delaware	7950 Jones Branch Drive, McLean, VA 22102	7372	83-2741623
veriScan, LLC	Delaware	7950 Jones Branch Drive, McLean, VA 22102	7372	86-1902226
214 Technologies, Inc. d/b/a Trueface	Delaware	7950 Jones Branch Drive, McLean, VA 22102	7372	46-3640095
BigBear.ai Federal, LLC (f/k/a NuWave Solutions, L.L.C.)	Maryland	6811 Benjamin Franklin Drive, Suite 200 Columbia, Maryland 21046	7372	52-2195680
ProModel, LLC	Pennsylvania	6811 Benjamin Franklin Drive, Suite 200 Columbia, Maryland 21046	7372	23-2458608
Pangiam Labs, LLC	Virginia	7950 Jones Branch Drive, McLean, VA 22102	7372	84-4554610
Linkware, LLC	Virginia	7950 Jones Branch Drive, McLean, VA 22102	7372	27-4673787

EXPLANATORY NOTE

This Post-Effective Amendment No. 3 (the "Amendment") to Registration Statement on Form S-1 on Form S-3 (Registration No. 333-261887) (the "Registration Statement") is being filed to revise the Registration Statement to reflect the guarantee of Pangiam Purchaser, LLC, a Delaware limited liability company, Pangiam Intermediate II Holdings, LLC, a Delaware limited liability company, Pangiam Labs, LLC, a Virginia limited liability company, LLC, a Virginia limited liability company, Pangiam Labs, LLC, a Delaware limited liability company, veriScan, LLC, a Delaware limited liability company, and 214 Technologies, Inc. d/b/a Trueface, a Delaware limited liability company (the "New Guarantors") under the Indenture, dated as of December 7, 2021 (as amended, supplemented or modified from time to time, the *Indenture*"), by and among BigBear.ai Holdings, Inc. (the "Registratior"), the guarantors party thereto and Wilmington Trust, National Association and to amend Schedule A to the Registration Statement to include the New Guarantors.

No changes or additions are being made hereby to the base prospectus that already forms a part of the Registration Statement. Accordingly, such base prospectus is being omitted from this filing.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 15. Indemnification of Directors and Officers.

We are incorporated under the laws of the State of Delaware. Section 145 of the DGCL authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

Our charter provides that our directors shall not be liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL, as amended. Our bylaws provide for indemnification of our directors and officers to the maximum extent permitted by the DGCL.

BigBear.ai Intermediate Holdings, LLC, BigBear.ai, LLC, Pangiam Purchaser, LLC, Pangiam Intermediate II Holdings, LLC, Pangiam Holdings, LLC, Pre, LLC, veriScan, LLC and 214 Technologies, Inc. d/b/a Trueface are organized under the laws of the State of Delaware. Section 18-108 of the Delaware Limited Liability Company Act provides that a limited liability company may, and shall have the power to, indemnify and hold harmless any member or manager or other person from and against any and all claims and demands whatsoever. The Amended and Restated Limited Liability Company Agreements of BigBear.ai Intermediate Holdings, LLC, BigBear.ai, LLC, Pangiam Purchaser, LLC, and Pre, LLC; the Limited Liability Company Agreements of Pangiam Intermediate II Holdings, LLC, Pangiam Holdings, LLC, and veriScan, LLC; and the Certificate of Incorporation of 214 Technologies, Inc. d/b/a Trueface provide for the indemnification of any member, manager or officer to the fullest extent permitted by the Delaware Limited Liability Company Act, except that neither entity will indemnify a member, manager or officer if the damage, loss or liability arises from such member, manager or officer's fraud, gross negligence, willful misconduct, intentional and material breach of the respective entity's limited liability company agreement or any other agreement between such member, manager or officer and the respective entity, or, in the case of a criminal matter, knowingly unlawful action.

BigBear.ai Federal, LLC (f/k/a NuWave Solutions, L.L.C.) is organized under the laws of the State of Maryland. Maryland law allows a limited liability company to indemnify and hold harmless any member, agent, or employee from and against any and all claims and demands, except in the case of action or failure to act by the member, agent, or employee which constitutes willful misconduct or recklessness. The Amended and Restated Operating Agreement, as amended, of BigBear.ai Federal, LLC (f/k/a NuWave Solutions, L.L.C.) provides for the indemnification of any member, manager or officer to the fullest extent permitted by the Maryland Limited Liability Company Act, except that the entity will not indemnify a member, manager or officer if the damage, loss or liability arises from such member, manager or officer's fraud, gross negligence, willful misconduct, intentional and material breach of the entity's operating agreement between such member, manager or officer and the entity or, in the case of a criminal matter, knowingly unlawful action.

Pangiam Labs, LLC and Linkware, LLC are organized under the laws of the Commonwealth of Virginia. The Virginia Limited Liability Company Act provides that a limited liability company may indemnify and hold harmless any member or manager or other person from and against any and all claims and demands whatsoever, and to pay for or reimburse any member or manager or other person for reasonable expenses incurred by such a person who is a party to a proceeding in advance of final disposition of the proceeding. The Amended and Restated Operating Agreements of Pangiam Labs, LLC and Linkware, LLC provide for the indemnification of any member, manager or officer to the fullest extent permitted by the Virginia Limited Liability Company Act, except that neither entity will indemnify a member, manager or officer if the damage, loss or liability arises from such member, manager or officer's fraud, gross negligence, willful misconduct, intentional and material breach of the respective entity's operating agreement or any other agreement between such member, manager or officer and the respective entity or, in the case of a criminal matter, knowingly unlawful action.

ProModel, LLC is organized under the laws of the Commonwealth of Pennsylvania. The Pennsylvania Uniform Limited Liability Company Act of 2016, ("PULLCA") provides that a limited liability company will indemnify and hold harmless a person with respect to any claim or demand against the person and any debt, obligation or other liability incurred by the person by reason of the person's former or present capacity as a member or manager, if the claim, demand, debt, obligation or other liability does not arise from the person's breach of certain sections of the PULLCA relating to limitations on distributions, management of the limited liability company, and standards of conduct for members and managers. The PULLCA further provides that indemnification under the PULLCA may not be made in any case where the act giving rise to the claim for indemnification is determined by a court to constitute recklessness, willful misconduct or a knowing violation of law. The Limited Liability Company Agreement of ProModel, LLC, or the "Agreement", provides that, to the fullest extent permitted by law, the company will indemnify and hold harmless each covered person (as defined in the Agreement) from and against any and all losses, claims, demands, liabilities, expenses, judgments, fines, settlements and other amounts arising from any and all claims, demands, actions, suits or proceedings, civil, criminal, administrative or investigative, in which the covered person may be involved, or threatened to be involved, as a party or otherwise, by reason of its management of the affairs of the company or which relates to or arises out of the company or its property, business or affairs. The Agreement further provides that a covered person will not be entitled to indemnification under the Agreement with respect to any claim with respect to which such covered person has engaged in fraud, willful misconduct, bad faith or gross negligence or any claim initiated by such covered person unless such claim (or part thereof) was brought to enforce such covered person's rights to indemnification under the Agreement or was authorized or consented to by the member. The Agreement also provides that none of the covered persons will be liable to the company or any other person for certain acts or omissions taken or omitted by a covered person in the reasonable belief that any such act or omission is in or is not contrary to the best interests of the company and is within the scope of authority granted to such covered person by the Agreement, provided such act or omission does not constitute fraud, willful misconduct, bad faith, or gross negligence.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is theretofore unenforceable.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

Exhibit Number	Description
2.1†**	Agreement and Plan of Merger, dated as of June 4, 2021, as amended by the Amendment to Merger Agreement, dated August 6, 2021, by and among GigCapital4, Inc., GigCapital4 Merger Sub Corporation, BigBear.ai Holdings, LLC and BBAI Ultimate Holdings, LLC (included as Annex A to the definitive Proxy Statement filed by GigCapital4, Inc. on November 5, 2021).
2.2†**	Amendment No. 2 to Merger Agreement, dated as of November 29, 2021 (incorporated by reference to Exhibit 10.1 filed on the Company's Current Report on Form 8-K, filed by GigCapital4, Inc. on November 30, 2021 and on Exhibit 2.2 to BigBear.ai Holdings, Inc.'s Form 8-K filed on December 13, 2021, respectively).
2.3†**	Agreement and Plan of Mergers, dated as of November 4, 2023, by and among Pangiam Ultimate Holdings, LLC, Pangiam Intermediate Holdings, LLC, Pangiam Merger Sub, Inc., Pangiam Purchaser, LLC and the Company (incorporated by reference to Exhibit 2.1 filed on the Company's Current Report on Form 8-K filed on November 6, 2023).
4.1**	Warrant Agreement, dated as of February 8, 2021, between Continental Stock Transfer & Trust Company and the GigCapital4, Inc. (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed by GigCapital4, Inc. on February 12, 2021).

Exhibit Number	Description
4.2**	Indenture, dated December 7, 2021, between Wilmington Trust, National Association and GigCapital4, Inc., relating to the 6.00% Convertible Notes due 2026 (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed by BigBear.ai Holdings, Inc. on December 13, 2021).
4.3**	Form of 2026 Convertible Note (included in Exhibit 4.2).
4.4**	First Supplemental Indenture, dated June 6, 2022 among BigBear.ai Holdings, Inc., ProModel Corporation and Wilmington Trust, National Association.
4.5	Second Supplemental Indenture, dated May 10, 2024 among BigBear ai Holdings, Inc., BigBear ai Intermediate Holdings, LLC, BigBear.ai, LLC, BigBear.ai Federal, LLC (f/k/a NuWave Solutions, L.L.C.), ProModel, LLC, Pangiam Purchaser, LLC, Pangiam Intermediate II Holdings, LLC, Pangiam Holdings, LLC, Pangiam Labs, LLC, Linkware, LLC, Pre, LLC, veriScan LLC, 214 Technologies, Inc. d/b/a Trueface and Wilmington Trust National Association.
5.1**	Opinion of Kirkland & Ellis LLP dated January 18, 2022.
5.2**	Opinion of Ballard Spahr LLP dated January 18, 2022.
5.3**	Opinion of Ballard Spahr LLP dated June 6, 2022.
5.4	Opinion of Kirkland & Ellis LLP dated May 10, 2024.
5.5	Opinion of Ballard Spahr LLP dated May 10, 2024.
21.1**	Subsidiaries of the Registrant.
22.1	List of Guarantor Subsidiaries.
23.1	Consent of Grant Thornton LLP.
23.2**	Consent of Kirkland & Ellis LLP (included in Exhibit 5.1).
23.3	Consent of Kirkland & Ellis LLP (included in Exhibit 5.4).
23.4**	Consent of Ballard Spahr LLP dated January 18, 2022 (included in Exhibit 5.2).
23.5**	Consent of Ballard Spahr LLP dated June 6, 2022 (included in Exhibit 5.3).
23.6	Consent of Ballard Spahr LLP dated May 10, 2024 (included in Exhibit 5.5).
24.1**	Power of Attorney (included on the signature page of this Registration Statement on Form S-1 on Form S-3).
25.1**	Form T-1 Statement of Eligibility under the Trust Indenture Act of 1939, as amended, of Trustee,
107**	Filing Fee Table.
<u> </u>	

#

Indicates a management contract or compensatory plan, contract or arrangement. Schedules and similar attachments to this Exhibit have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The Company agrees to furnish supplementally a copy of such omitted materials to the SEC upon request. t

** Previously filed.

Item 17. Undertakings

The undersigned registrant, hereby undertakes:

To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement: (1)

(a) To include any prospectus required by Section 10(a)(3) of the Securities Act;

- (b) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Filing Fee Tables" or "Calculation of Registration Fee" table, as applicable, in the effective registration statement; and
- (c) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.
- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (a) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (b) any "free writing prospectus" relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (c) the portion of any other "free writing prospectus" relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (d) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (5) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

BIGBEAR.AI HOLDINGS, INC.

By:	/s/ Julie Peffer
Name:	Julie Peffer

Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date	
* Amanda Long	Chief Executive Officer and Director (Principal Executive Officer)	May 10, 2024	
* Julie Peffer	Chief Financial Officer (Principal Financial Officer)	May 10, 2024	
* Sean Ricker	Chief Accounting Officer (Principal Accounting Officer)	May 10, 2024	
* Sean Battle	Director	May 10, 2024	
* Pamela Braden	Director	May 10, 2024	
* Peter Cannito	Director	May 10, 2024	
* Paul Fulchino	Director	May 10, 2024	
* Jeffrey Hart	Director	May 10, 2024	
* Dorothy D. Hayes	Director	May 10, 2024	
* Kirk Konert	Director	May 10, 2024	
*By: /s/ Julie Peffer			

Name: Julie Peffer

Title: Attorney-in-fact

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

BIGBEAR.AI INTERMEDIATE HOLDINGS, INC.

By: BigBear.ai Holdings, Inc., its Sole Member

By:	/s/ Julie Peffer
Name:	Julie Peffer
Title:	Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date
* Amanda Long	 Chief Executive Officer and Manager (Principal Executive Officer) 	May 10, 2024
/s/ Julie Peffer Julie Peffer	 Chief Financial Officer and Manager (Principal Financial Officer) 	May 10, 2024
*By: /s/ Julie Peffer		

Name: Julie Peffer

Title: Attorney-in-fact

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

BIGBEAR.AI, LLC

By: BigBear.ai Intermediate Holdings, LLC, its Sole Member

By: /s/ Julie Peffer

Name: Julie Peffer Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date	
* Amanda Long	Chief Executive Officer and Manager (Principal Executive Officer)	May 10, 2024	
/s/ Julie Peffer Julie Peffer	Chief Financial Officer and Manager (Principal Financial and Accounting Officer)	May 10, 2024	
*By: /s/ Julie Peffer			

Name: Julie Peffer

Title: Attorney-in-fact

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

BIGBEAR.AI FEDERAL, LLC

By: BigBear.ai, LLC, its Sole Member

By:	/s/	Jı	ılie	Peffer
NT.			n	00

Name: Julie Peffer Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date
* Amanda Long	Chief Executive Officer and Manager (Principal Executive Officer)	May 10, 2024
/s/ Julie Peffer Julie Peffer	Chief Financial Officer and Manager (Principal Financial and Accounting Officer)	May 10, 2024
*By: /s/ Julie Peffer		

Name: Julie Peffer

Title: Attorney-in-fact

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

PROMODEL, LLC

By: BigBear.ai, LLC, its Sole Member

By:	/s/ Julie Peffer
Name:	Julie Peffer

Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date
* Amanda Long	Chief Executive Officer and Manager (Principal Executive Officer)	May 10, 2024
/s/ Julie Peffer Julie Peffer	Chief Financial Officer and Manager (Principal Financial and Accounting Officer)	May 10, 2024
*By: /s/ Julie Peffer		

Name: Julie Peffer

Title: Attorney-in-fact

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

PANGIAM PURCHASER, LLC

By: BigBear.ai Holdings, Inc., its Sole Member

By: /s/ Julie Peffer Name: Julie Peffer Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date
/s/ Amanda Long Amanda Long	Chief Executive Officer and Manager (Principal Executive Officer)	May 10, 2024
/s/ Julie Peffer Julie Peffer	Chief Financial Officer and Manager (Principal Financial and Accounting Officer)	May 10, 2024

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

PANGIAM INTERMEDIATE II HOLDINGS, LLC

By: Pangiam Purchaser, LLC, its Sole Member

By:	/s/ Julie Peffer
Name:	Julie Peffer
Title:	Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date
/s/ Amanda Long Amanda Long	Chief Executive Officer and Manager (Principal Executive Officer)	May 10, 2024
/s/ Julie Peffer Julie Peffer	Chief Financial Officer and Manager (Principal Financial and Accounting Officer)	May 10, 2024

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

PANGIAM HOLDINGS, LLC

By: Pangiam Intermediate II Holdings, LLC, its Sole Member

By: /s/ Julie Peffer

Name: Julie Peffer Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date
/s/ Amanda Long Amanda Long	Chief Executive Officer and Manager (Principal Executive Officer)	May 10, 2024
/s/ Julie Peffer Julie Peffer	Chief Financial Officer and Manager (Principal Financial and Accounting Officer)	May 10, 2024

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

PANGIAM LABS, LLC

By: Pangiam Holdings, LLC, its Sole Member

By: /s/ Julie Peffer Name: Julie Peffer Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date
/s/ Amanda Long Amanda Long	Chief Executive Officer and Manager (Principal Executive Officer)	May 10, 2024
/s/ Julie Peffer Julie Peffer	Chief Financial Officer and Manager (Principal Financial and Accounting Officer)	May 10, 2024

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

LINKWARE, LLC

By: Pangiam Holdings, LLC, its Sole Member

By: /s/ Julie Peffer Name: Julie Peffer Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date
/s/ Amanda Long Amanda Long	Chief Executive Officer and Manager (Principal Executive Officer)	May 10, 2024
/s/ Julie Peffer Julie Peffer	Chief Financial Officer and Manager (Principal Financial and Accounting Officer)	May 10, 2024

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

PRE, LLC

By: Pangiam Holdings, LLC, its Sole Member

By:	/s/ Julie Peffer
Name:	Julie Peffer

Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date
/s/ Amanda Long Amanda Long	Chief Executive Officer and Manager (Principal Executive Officer)	May 10, 2024
/s/ Julie Peffer Julie Peffer	Chief Financial Officer and Manager (Principal Financial and Accounting Officer)	May 10, 2024

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

VERISCAN, LLC

By: Pangiam Holdings, LLC, its Sole Member

By: /s/ Julie Peffer Name: Julie Peffer Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date
/s/ Amanda Long Amanda Long	Chief Executive Officer and Manager (Principal Executive Officer)	May 10, 2024
/s/ Julie Peffer Julie Peffer	Chief Financial Officer and Manager (Principal Financial and Accounting Officer)	May 10, 2024

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Columbia, Maryland on the 10th day of May 2024.

214 TECHNOLOGIES, INC. D/B/A TRUEFACE

By: Pangiam Holdings, LLC, its Sole Member

By: <u>/s/ Julie Peffer</u> Name: Julie Peffer Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Position	Date
/s/ Amanda Long Amanda Long	Chief Executive Officer and Manager (Principal Executive Officer)	May 10, 2024
/s/ Julie Peffer Julie Peffer	Chief Financial Officer and Manager (Principal Financial and Accounting Officer)	May 10, 2024

SECOND SUPPLEMENTAL INDENTURE

BIGBEAR.AI HOLDINGS, INC.

THE GUARANTORS PARTY HERETO

AND

WILMINGTON TRUST, NATIONAL ASSOCIATION,

as Trustee

Dated as of May 10, 2024

6.00% Convertible Senior Notes due 2026

THIS SECOND SUPPLEMENTAL INDENTURE (this "**Supplemental Indenture**"), entered into as of May 10, 2024, among BIGBEAR.AI HOLDINGS. INC., a Delaware corporation (the "**Company**"), BigBear.ai Intermediate Holdings, LLC, a Delaware limited liability company, BigBear.ai, Federal, LLC (*f/k/a* NuWave Solutions, L.L.C.), a Maryland limited liability company, ProModel LLC, a Pennsylvania limited liability company, Pangiam Purchaser, LLC, a Delaware limited liability company, Pangiam Purchaser, LLC, a Delaware limited liability company, Pangiam Holdings, LLC, a Delaware limited liability company, Pangiam Linkware, LLC, a Virginia limited liability company, Pre, LLC, a Delaware limited liability company, veriScan, LLC, a Delaware limited liability company, and 214 Technologies, Inc. d/b/a Trueface, a Delaware limited liability company (each an "**Undersigned**") and WILMINGTON TRUST, NATIONAL ASSOCIATION, as trustee (the "**Trustee**").

RECITALS

WHEREAS, the Company, the Guarantors party thereto and the Trustee entered into an Indenture, dated as of December 7, 2021 (the **Indenture**"), relating to the Company's 6.00% Convertible Senior Notes due 2026 (the "**Notes**");

WHEREAS, the Company agreed pursuant to the Indenture to cause any Subsidiary (with certain exceptions) that guarantees certain Indebtedness of the Company or any Guarantor following the Issue Date to provide a Guarantee;

WHEREAS, pursuant to Section 10.01(c), the Company and the Trustee are authorized to execute and deliver this Supplemental Indenture without the consent of Holders.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and intending to be legally bound, the parties to this Supplemental Indenture hereby agree as follows:

Section 1. Capitalized terms used herein and not otherwise defined herein are used as defined in the Indenture.

Section 2. Each Undersigned, by its execution of this Supplemental Indenture, agrees to be a Guarantor under the Indenture and to be bound by the terms of the Indenture applicable to Guarantors, including, but not limited to, Article 13 thereof.

Section 3. This Supplemental Indenture shall be governed by and construed in accordance with the laws of the State of New York.

Section 4. This Supplemental Indenture may be signed in various counterparts which together shall constitute one and the same instrument.

Section 5. This Supplemental Indenture is an amendment supplemental to the Indenture, and the Indenture and this Supplemental Indenture shall henceforth be read together.

Section 6. The recitals and statements herein are deemed to be those of the Company and the Undersigned and not the Trustee. The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Supplemental Indenture or the Guarantees provided by the Guarantors party to this Supplemental Indenture.

IN WITNESS WHEREOF, the parties hereto have caused this Supplemental Indenture to be duly executed as of the date first above written.

BIGBEAR.AI HOLDINGS, INC., as Issuer

By: <u>/s/ Julie Peffer</u> Name: Julie Peffer Title: Chief Financial Officer

BIGBEAR.AI INTERMEDIATE HOLDINGS, LLC, as Guarantor

By: /s/ Julie Peffer

Name: Julie Peffer Title: Chief Financial Officer

BIGBEAR.AI LLC, as Guarantor

By: /s/ Julie Peffer Name: Julie Peffer Title: Chief Financial Officer

BIGBEAR.AI FEDERAL, LLC (F/K/A NUWAVE SOLUTIONS, L.L.C.), as Guarantor

By: <u>/s/ Julie Peffer</u> Name: Julie Peffer Title: Chief Financial Officer

PROMODEL LLC, as Guarantor

By: <u>/s/ Julie Peffer</u> Name: Julie Peffer Title: Chief Financial Officer

PANGIAM PURCHASER, LLC, as Guarantor

By: <u>/s/ Julie Peffer</u> Name: Julie Peffer Title: Chief Financial Officer

PANGIAM INTERMEDIATE II HOLDINGS, LLC, as Guarantor

By: <u>/s/ Julie Peffer</u> Name: Julie Peffer Title: Chief Financial Officer

PANGIAM HOLDINGS, LLC, as Guarantor

By: <u>/s/ Julie Peffer</u> Name: Julie Peffer Title: Chief Financial Officer

PANGIAM LABS, LLC, as Guarantor

By: <u>/s/ Julie Peffer</u> Name: Julie Peffer Title: Chief Financial Officer

LINKWARE, LLC, as Guarantor

By: /s/ Julie Peffer Name: Julie Peffer Title: Chief Financial Officer

PRE, LLC, as Guarantor

By: <u>/s/ Julie Peffer</u> Name: Julie Peffer Title: Chief Financial Officer

VERISCAN, LLC, as Guarantor

By: <u>/s/ Julie Peffer</u> Name: Julie Peffer Title: Chief Financial Officer

214 TECHNOLOGIES, INC. D/B/A TRUEFACE, as Guarantor

By: /s/ Julie Peffer

Name: Julie Peffer Title: Chief Financial Officer

WILMINGTON TRUST, NATIONAL ASSOCIATION, as Trustee

By:/s/ Quinton M. DePompoloName:Quinton M. DePompoloTitle:Assistant Vice President

601 Lexington Avenue New York, NY 10022 United States

+1 212 446 4800

www.kirkland.com

May 10, 2024

BigBear.ai Holdings, Inc. 6811 Benjamin Franklin Drive, Suite 200 Columbia, Maryland 21046

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We are issuing this opinion letter in our capacity as special legal counsel to BigBear.ai Holdings, Inc., a Delaware corporation (the '<u>Company</u>''), and the entities listed on Exhibit A hereto (the '<u>Guarantors</u>''). This opinion letter is being delivered in connection with the preparation of a post-effective amendment to the Registration Statement on Form S-3 (such Registration Statement, as it may be subsequently amended or supplemented, is hereinafter referred to as the '<u>Registration Statement</u>'') initially filed with the Securities and Exchange Commission (the '<u>Commission</u>'') on Form S-1 on December 23, 2021 under the Securities Act of 1933, as amended (the '<u>Securities Act</u>''), by the Company. Capitalized terms used but not otherwise defined herein shall have the meaning ascribed to them in the amended and restated indenture (the '<u>Indenture</u>'') entered into on December 7, 2021, by and among the Company, the Guarantors and Wilmington Trust, National Association in its capacity as trustee thereunder (the '<u>Trustee</u>'').

The Registration Statement relates to (A) the issuance by the Company of up to 12,326,472 shares (the '<u>Warrant Shares</u>'') of common stock, par value \$0.0001 per share ('<u>Common Stock</u>''), upon the exercise of warrants, each exercisable for one share of Common Stock at a price of \$11.50 per share ('<u>Warrants</u>''); (B) the resale or distribution from time to time by the selling stockholders named in the prospectus contained in the Registration Statement and any supplement thereto or their permitted transferees of up to 124,931,453 shares of Common Stock (the '<u>Selling Stockholder Shares</u>''), and 366,533 Warrants held by the selling stockholders named in the Registration Statement; (C) the resale or distribution from time to time by the selling noteholders named in the prospectus contained in the Registration Statement and any supplement thereto or their permitted transferees of up to 3200,000,000 in aggregate principal amount of outstanding 6.00% convertible senior notes due 2026 ('<u>Notes</u>''); and (D) the resale or distribution from time to time by the selling noteholders named in the prospectus contained in the prospectus contained in the spectus contained in the prospectus contained in the

Austin Bay Area Beijing Brussels Chicago Dallas Hong Kong Houston London Los Angeles Miami Munich New York Paris Riyadh Salt Lake City Shanghai Washington, D.C.

Facsimile: +1 212 446 4900

BigBear.ai Holdings, Inc. May 10, 2024 Page 2

the Registration Statement and any supplement thereto or their permitted transferees of up to 23,058,494 shares of Common Stock issuable upon conversion of the Notes (the "<u>Note Shares</u>"). The Warrant Shares, the Selling Stockholder Shares, the Warrants, Notes and Note Shares are collectively referred to herein as the "Securities."

In connection with the registration of the Securities, we have examined originals, or copies certified or otherwise identified to our satisfaction, of such documents, corporate records and other instruments as we have deemed necessary for the purposes of this opinion, including: (i) the organizational documents of the Company and each Covered Guarantor (as set forth in Exhibit A), (ii) resolutions of the Company and Covered Guarantors with respect to the issuance and registration of the Securities and (iii) the Registration Statement and the exhibits thereto.

For purposes of this opinion, we have assumed the authenticity of all documents submitted to us as originals, the conformity to the originals of all documents submitted to us as copies and the authenticity of the originals of all documents submitted to us as copies. We have also assumed the legal capacity of all natural persons, the genuineness of the signatures of persons signing all documents in connection with which this opinion is rendered, the authority of such persons signing on behalf of the parties thereto other than the Company and Covered Guarantors and the due authorization, execution and delivery of all documents by the parties thereto other than the Company and Covered Guarantors. We have not independently established or verified any facts relevant to the opinions expressed herein, but have relied upon statements and representations of the officers and other representatives of the Company and Covered Guarantors.

Based upon the foregoing and subject to the assumptions, qualifications and limitations set forth herein, we are of the opinion that:

1. The Warrants are legal, valid and binding agreements of the Company, enforceable against the Company in accordance with their terms.

2. The Warrant Shares have been duly authorized and, when issued by the Company against payment therefor in accordance with the terms of the Warrants, will be validly issued, fully paid and non-assessable.

3. The Selling Stockholder Shares have been duly authorized and are validly issued, fully paid and non-assessable.

4. The Note Shares have been duly authorized and, when issued by the Company upon conversion of the Notes in accordance with the terms of the Notes, will be validly issued, fully paid and nonassessable.

BigBear.ai Holdings, Inc. May 10, 2024 Page 3

5. The Notes have been duly authorized, executed and delivered by the Company, and (assuming the due authorization, execution and delivery of the Indenture by the Trustee and due authentication and delivery of the Notes by the Trustee in accordance with the Indenture), are valid and binding obligations of the Company, and are enforceable against the Company in accordance with their terms and the holders of record of the Notes are entitled to the benefits afforded by the Indenture.

6. The Guarantees constitute legal, valid and binding obligations of the Guarantors, enforceable against the Guarantors in accordance with their respective terms and have been duly authorized by all necessary corporate or limited liability company actions on the part of each of the Covered Guarantors.

Our opinions expressed above are subject to the qualification that we express no opinion as to the applicability of, compliance with, or effect of any laws except the General Corporation Law of the State of Delaware (including the statutory provisions, all applicable provisions of the Delaware constitution and reported judicial decisions interpreting the foregoing), the Limited Liability Company Act of the State of Delaware and the laws of the State of New York.

Each opinion in this letter that any particular contract constitutes a valid and binding agreement or is enforceable in accordance with its terms (each, an "<u>enforceability opinion</u>") is subject to: (i) the effect of bankruptcy, insolvency, fraudulent conveyance and other similar laws and judicially developed doctrines in this area such as substantive consolidation and equitable subordination; (ii) the effect of general principles of equity; and (iii) other commonly recognized statutory and judicial constraints on enforceability including statutes of limitations. "General principles of equity" include but are not limited to: (A) principles limiting the availability of specific performance and injunctive relief; (B) principles which limit the availability of a remedy under certain circumstances where another remedy has been elected; (C) principles which may permit a party to cure a material failure to perform its obligations; and (E) principles affording equitable defenses such as waiver, laches and estoppel. It is possible that terms in a particular contract covered by our enforceability opinion may not prove enforceable for reasons other than those explicitly cited in this letter should an actual enforcement action be brought, but (subject to all the exceptions, qualifications, exclusions and other limitations contained in this letter) such unenforceability would not in our opinion prevent the party entitled to enforce that contract from realizing the principle benefits purported to be provided to that party by the terms in that contract which are covered by our enforceability opinion. In addition, none of the opinions or other advice contained in this letter covers or otherwise addresses any of the following types of provisions (or the enforceability thereof) which may be contained in the Indenture, the Notes and the Guarantees: (i) provisions mandating contribution towards judgments or settlements among various parties; (ii) waivers of

BigBear.ai Holdings, Inc. May 10, 2024 Page 4

benefits and rights to the extent they cannot be waived under applicable law; (iii) provisions providing for liquidated damages, late charges and prepayment charges, in each case if deemed to constitute penalties; (iv) provisions which might require indemnification or contribution in violation of general principles of equity or public policy, including, without limitation, indemnification or contribution obligations which arise out of the failure to comply with applicable state or federal securities laws, rules or regulations; or (v) requirements in the Indenture, the Notes and the Guarantees specifying that provisions thereof may only be waived in writing (these provisions may not be valid, binding or enforceable to the extent that an oral agreement or an implied agreement by trade practice or course of conduct has been created modifying any provision of such documents). The enforceability opinion related to the Guarantees is further subject to the effect of rules of law that may render guarantees unenforceable under circumstances where, in the absence of an effective consent or waiver by the Guarantees so radically change the essential nature of the terms and conditions of the guaranteed obligations and the related transactions that, in effect, a new relationship has arisen between the Trustee and the Company or the Guarantees, which is substantially and materially different from that presently contemplated by the Indenture, the Notes and the Guarantees.

We hereby consent to the filing of this opinion with the Commission as Exhibit 5.4 to the Registration Statement. We also consent to the reference to our firm under the heading "Legal Matters" in the Registration Statement. In giving this consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

We do not find it necessary for the purposes of this opinion, and accordingly we do not purport to cover herein, the application of the securities or "Blue Sky" laws of the various states to the issuance and sale of the Securities.

This opinion is limited to the specific issues addressed herein, and no opinion may be inferred or implied beyond that expressly stated herein. This opinion speaks only as of the date hereof, and we assume no obligation to revise or supplement this opinion after the date of effectiveness should the General Corporation Law of the State of Delaware, the Limited Liability Company Act of the State of Delaware or the laws of the State of New York be changed by legislative action, judicial decision or otherwise after the date hereof.

This opinion is furnished to you in connection with the filing of the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act, and is not to be used, circulated, quoted or otherwise relied upon for any other purpose.

BigBear.ai Holdings, Inc. May 10, 2024 Page 5

Sincerely,

/s/ Kirkland & Ellis LLP

Kirkland & Ellis LLP

BigBear.ai Holdings, Inc. May 10, 2024 Page 6

Exhibit A

Guarantors

Covered Guarantors

Entity Name BigBear.ai Intermediate Holdings, LLC BigBear.ai, LLC Pangiam Purchaser, LLC Pangiam Intermediate II Holdings, LLC Pangiam Holdings, LLC Pre, LLC veriScan, LLC 214 Technologies, Inc. d/b/a Trueface

Non-Covered Guarantors

Entity Name
BigBear.ai Federal, LLC
Pangiam Labs, LLC
Linkware, LLC
ProModel, LLC

Jurisdiction

Jurisdiction

Delaware

Delaware

Delaware

Delaware

Delaware

Delaware

Delaware

Delaware

Maryland Virginia Virginia Pennsylvania

Ballard Spah

111 S. Calvert Street, 27th Floor Baltimore, MD 21202-6174 Tel 410.528.5600 Fax 410.528.5650 www.ballardspahr.com

May 10, 2024

BigBear.ai Holdings, Inc. 6811 Benjamin Franklin Drive, Suite 200 Columbia, Maryland 21046

Re: Post-Effective Amendment No. 3 to Registration Statement on Form S-1 on Form S-3 (Registration No. 333-261887) (the "Registration Statement")

Ladies and Gentlemen:

We have acted as Virginia counsel to each of Pangiam Labs, LLC, a Virginia limited liability company ("Pangiam Labs"), and Linkware, LLC, a Virginia limited liability company ("Linkware" and together with Pangiam Labs, the "Guarantors"), in connection with the registration of certain securities of BigBear.ai Holdings, Inc., a Delaware corporation of which each of the Guarantors is a subsidiary (the "Registrant"), which include \$200,000,000 maximum aggregate offering price of the Registrant's 6.00% Convertible Senior Notes due 2026 (the "Notes") and the Guarantees (as defined herein), under the Securities Act of 1933, as amended (the "Act"), pursuant to the Registration Statement, which was originally filed with the Securities and Exchange Commission (the "Commission") on or about December 23, 2021. You have requested our opinion with respect to the matters set forth below.

We understand that the Notes have been issued under, and are subject to the terms of, the Indenture (as defined herein) and that each of the Guarantors, jointly and severally with the other guarantors party to the Indenture from time to time, will provide a full and unconditional guarantee with respect to the Notes pursuant to Article 13 of the Indenture (the "Guarantees").

In our capacity as Virginia counsel to the Guarantors and for purposes of this opinion, we have examined originals, or copies certified or otherwise identified to our satisfaction, of the following documents:

- the Articles of Organization of Pangiam Labs filed with the Virginia State Corporation Commission (the "Virginia SCC") on February 3, 2020, and the Articles of Amendment of Pangiam Labs filed with the Virginia SCC on December 2, 2020 (collectively, the "Pangiam Labs Articles of Organization");
- (ii) the Amended and Restated Operating Agreement of Pangiam Labs, dated as of October 30, 2020 (the "Pangiam Labs Operating Agreement");
- (iii) the Articles of Organization of Linkware filed with the Virginia SCC on January 26, 2011 (the "Linkware Articles of Organization" and together with the Pangiam Labs Articles of Organization, collectively, the "Articles of Organization");

BALLARD SPAHR LLP

BigBear.ai Holdings, Inc. May 10, 2024 Page 2

- (iv) the Amended and Restated Operating Agreement of Linkware, dated as of October 30, 2020 (the "Linkware Operating Agreement" and together with the Pangiam Labs Operating Agreement, collectively, the "Operating Agreements");
- (v) certain resolutions adopted by the board of managers of each of the Guarantors (the "Authorizing Resolutions");
- (vi) an executed copy of the Indenture, dated as of December 7, 2021 (the "Base Indenture"), by and among the Registrant, as issuer, each of the guarantors party thereto from time to time, and Wilmington Trust, National Association, as trustee (the "Trustee"), as supplemented by the First Supplemental Indenture, dated as of June 6, 2022 (the "First Supplemental Indenture"), by and among the Registrant, each of the guarantors party thereto and the Trustee, and the Second Supplemental Indenture, dated as of May 10, 2024 (the "Second Supplemental Indenture" and together with the Base Indenture and the First Supplemental Indenture, collectively, the "Indenture"), by and among the Registrant, the Guarantors, the other guarantors party thereto and the Trustee;
- (vii) the Registration Statement and the related form of prospectus included therein, in substantially the form filed or to be filed with the Commission pursuant to the Act;
- (viii) a certificate of one or more officers of each of the Guarantors, dated as of a recent date (the "Officers' Certificate"), to the effect that, among other things, the Articles of Organization, the Operating Agreements and the Authorizing Resolutions are true, correct and complete, have not been rescinded or modified and are in full force and effect on the date of the Officers' Certificate, and certifying, among other things, as to the manner of adoption of the Authorizing Resolutions and the form, approval, execution and delivery of the Indenture (which includes the Guarantees); and
- (ix) such other documents and matters as we have deemed necessary and appropriate to render the opinions set forth in this letter, subject to the limitations, assumptions, and qualifications noted below.

In reaching the opinions set forth below, we have assumed the following:

- (a) each person executing any instrument, document or agreement on behalf of any party (other than the Guarantors) is duly authorized to do so;
- (b) each natural person executing any instrument, document or agreement is legally competent to do so;
- (c) there are no material modifications of, or amendments to, the pertinent sections of the Indenture (which includes the Guarantees);

BALLARD SPAHR LLP

BigBear.ai Holdings, Inc. May 10, 2024 Page 3

- (d) all documents submitted to us as originals are authentic; all documents submitted to us as certified, facsimile or photostatic copies conform to the original document; all signatures on all documents submitted to us for examination are genuine; and all public records reviewed are accurate and complete;
- (e) the Officers' Certificate and all other certificates submitted to us are true and correct both when made and as of the date hereof;
- (f) the consummation of the transactions contemplated by the Indenture will result in receipt by the Guarantors of good and valuable consideration, and such transactions are fair and reasonable to the Guarantors;
- (g) each of the parties thereto (other than the Guarantors) have duly and validly authorized, executed and delivered each instrument, document and agreement, including but not limited to the Indenture, executed in connection with the transactions contemplated by the Indenture to which such party is a signatory, and such party's obligations set forth therein are its legal, valid and binding obligations, enforceable in accordance with their respective terms; and
- (h) we have also examined, and relied upon the accuracy of factual matters contained in, originals or copies, certified or otherwise identified to our satisfaction, of such corporate records and certificates or comparable documents of public officials and of officers and representatives of the Guarantors.

Based on the foregoing, and subject to the assumptions and qualifications set forth herein, it is our opinion that, as of the date of this letter, the execution and delivery by each of the Guarantors of the Second Supplemental Indenture (which includes the Guarantees) have been duly authorized by all necessary limited liability company action on the part of each of the Guarantors, and the Second Supplemental Indenture (which includes the Guarantees) has been duly executed and delivered by each of the Guarantors.

The foregoing opinions are limited to the laws of the Commonwealth of Virginia, and we do not express any opinion herein concerning any other laws. We express no opinion as to the applicability or effect of any federal or state securities laws, including the securities laws of the Commonwealth of Virginia, or as to federal or state laws regarding fraudulent transfers. To the extent that any matter as to which our opinion is expressed herein would be governed by the laws of any jurisdiction other than the Commonwealth of Virginia, we do not express any opinion on such matter.

This opinion letter is issued as of the date hereof and is necessarily limited to laws now in effect and facts and circumstances presently existing and brought to our attention. We assume no obligation to supplement this opinion letter if any applicable laws change after the date hereof, or if we become aware of any facts or circumstances that now exist or that occur or arise in the future and may change the opinions expressed herein after the date hereof.

BALLARD SPAHR LLP

BigBear.ai Holdings, Inc. May 10, 2024 Page 4

We consent to your filing this opinion as an exhibit to the Registration Statement, and further consent to the filing of this opinion as an exhibit to the applications to securities commissioners for the various states of the United States for registration of the Notes and the Guarantees. We also consent to the identification of our firm as Virginia counsel to the Guarantors in the section of the Registration Statement entitled "Legal Matters". In giving this consent, we do not admit that we are within the category of persons whose consent is required by Section 7 of the Act.

Very truly yours,

/s/ Ballard Spahr LLP

Guarantor Subsidiaries of BigBear.ai Holdings, Inc.

Set forth is a list of the guarantor subsidiaries of BigBear.ai Holdings, Inc. as of May 10, 2024 and their respective jurisdictions of organization.

Name BigBear.ai Intermediate Holdings, LLC BigBear.ai, LLC Pangiam Purchaser, LLC Pangiam Intermediate II Holdings, LLC Pangiam Holdings, LLC Pre, LLC veriScan, LLC 214 Technologies, Inc. d/b/a Trueface BigBear.ai Federal, LLC ProModel, LLC Pangiam Labs, LLC Linkware, LLC Jurisdiction of Formation Delaware Delaware Delaware Delaware Delaware Delaware Delaware Maryland Pennsylvania Virginia

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated March 15, 2024 with respect to the consolidated financial statements of BigBear.ai Holdings, Inc. included in the Annual Report on Form 10-K for the year ended December 31, 2023, which is incorporated by reference in the Registration Statement and Preliminary Prospectus. We consent to the incorporation by reference of said report in the Registration Statement and Preliminary Prospectus, and to the use of our name as it appears under the caption "Experts".

/s/ GRANT THORNTON LLP

Arlington, Virginia May 10, 2024