UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

Tempus AI, Inc.

(Exact name of registrant as specified in its charter)

	Delaware (State or other jurisdiction of incorporation or organization)		47-4903308 (I.R.S. Employer Identification No.)	
	Vest Chicago Avenue, Suite 510 Chicago, Illinois dress of Principal Executive Offices)		60654 (Zip Code)	
	Tempus A	AI, Inc. 2024 Equity Incentive Plan (Full titles of the plans)		
	600 W	Eric Lefkofsky ntive Officer, Founder and Chairman Tempus AI, Inc. Vest Chicago Avenue, Suite 510 Chicago, Illinois 60654 zip code, and telephone number, including area co	ode, of agent for service)	
		Copies to:		
		Christina T. Roupas Courtney M.W. Tygesson Cooley LLP 110 North Wacker Drive Suite 4200 Chicago, IL 60606 Tel: (312) 881-6500		
	y. See the definitions of "large acceler	rated filer, an accelerated filer, a non-accelerated filer," "accelerated filer," "smaller re	erated filer, smaller reporting company, or a porting company," and "emerging growth	an
Large Accelerated filer			Accelerated filer	
Non-accelerated filer	\boxtimes		Smaller reporting company	
			Emerging growth company	X
If an emerging growth co	empany, indicate by check mark if the	registrant has elected not to use the extend	ed transition period for complying with any	y

new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. □

PART I

INFORMATION REQUIRED IN THE SECTION 10(A) PROSPECTUS

The information called for by Part I of Form S-8 is omitted from this Registration Statement in accordance with Rule 428 of the Securities Act of 1933, as amended (the "Securities Act") and the instructions to Form S-8. In accordance with the rules and regulations of the Securities and Exchange Commission (the "Commission") and the instructions to Form S-8, such documents are not being filed with the Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 of the Securities Act.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Registrant hereby incorporates by reference into this Registration Statement the following documents previously filed by the Registrant with the Commission:

- (a) The Registrant's prospectus dated June 13, 2024, filed pursuant to Rule 424(b) of the Securities Act on <u>June 17, 2024</u>, relating to the Registration Statement on <u>Form S-1</u>, as amended (File No. 333-279558), which contains audited financial statements for the Registrant's latest fiscal year for which such statements have been filed; and
- (b) The description of the Registrant's Common Stock contained in the Registrant's Registration Statement on Form 8-A filed on June 11, 2024 (File No. 001-42130) under Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including any amendment or report filed for the purpose of updating such description.

All documents filed by the Registrant pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing of such documents; provided, however, that documents or portions thereof that are furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement herein or in any other subsequently filed document that also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not constitute a part of this Registration Statement, except as so modified or superseded.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Certain attorney of Cooley LLP beneficially owns 8,982 shares of the Registrant's Class A common stock.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law 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. The Registrant's amended and restated certificate of incorporation permits indemnification of its directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law, and the Registrant's amended and restated bylaws provide that the Registrant will indemnify its directors and executive officers and permit it to indemnify its other officers, employees, and other agents, in each case to the maximum extent permitted by the Delaware General Corporation Law.

The Registrant has entered into indemnification agreements with its directors and executive officers, whereby it has agreed to indemnify its directors and executive officers to the fullest extent permitted by law, including indemnification against expenses and liabilities incurred in legal proceedings to which the director or executive officer was, or is threatened to be made, a party by reason of the fact that such director or executive officer is or was a director, executive officer, employee or agent of the Registrant, provided that such director or executive officer acted in good faith and in a manner that the director or executive officer reasonably believed to be in, or not opposed to, the best interest of the Registrant. At present, there is no pending litigation or proceeding involving a director or executive officer of the Registrant regarding which indemnification is sought, nor is the Registrant aware of any threatened litigation that may result in claims for indemnification.

The Registrant maintains insurance policies that indemnify its directors and officers against various liabilities arising under the Securities Act and the Exchange Act, that might be incurred by any director or officer in his capacity as such.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The exhibits to this Registration Statement are listed below:

Exhibit Number	Description
4.1	Amended and Restated Certificate of Incorporation of the Registrant, as currently in effect (incorporated herein by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-42130), filed with the Commission on June 17, 2024).
4.2	Amended and Restated Bylaws of the Registrant, as currently in effect (incorporated herein by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K (File No. 001-42130), filed with the Commission on June 17, 2024).
4.3	Form of Class A Common Stock Certificate of the Registrant (incorporated herein by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1/A (File No. 333-279558), filed with the Commission on June 5, 2024).

Exhibit Number	Description			
5.1*	Opinion of Cooley LLP.			
23.1*	Consent of Independent Registered Public Accounting Firm.			
23.2*	Consent of Cooley LLP (included in Exhibit 5.1).			
24.1*	Power of Attorney (included on the signature page).			
99.1	The Registrant's 2024 Equity Incentive Plan (incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form S-1/A (File No. 333-279558), filed with the Commission on June 5, 2024).			
99.2	Forms of Restricted Stock Unit Grant Notice and Award Agreement under the Registrant's 2024 Equity Incentive Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Registration Statement on Form S-1 (File No. 333-279558), filed with the Commission on May 20, 2024).			
99.3	Forms of Grant Notice, Stock Option Agreement and Notice of Exercise under the Registrant's 2024 Equity Incentive Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form S-1 (File No. 333-279558), filed with the Commission on May 20, 2024).			
107*	Filing Fee Table.			

^{*} Filed herewith.

Item 9. Undertakings.

- (a) The undersigned Registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) 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 a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and
 - (iii) 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.

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the Registration Statement is on Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference 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.
- (b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) 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 Commission such indemnification is against public policy as expressed in the Securities 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 Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Chicago, State of Illinois, on June 17, 2024.

TEMPUS AI, INC.

By: /s/ Eric Lefkofsky

Eric Lefkofsky

Chief Executive Officer, Founder and Chairman

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Eric Lefkofsky and James Rogers and each of them, as his or her true and lawful attorney-in-fact and agents, each with the full power of substitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agents, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date	
/s/ Eric Lefkofsky Eric Lefkofsky	Chief Executive Officer, Founder and Chairman (Principal Executive Officer)	June 17, 2024	
/s/ James Rogers James Rogers	Chief Financial Officer (Principal Financial Officer)	June 17, 2024	
/s/ Ryan Bartolucci Ryan Bartolucci	Chief Accounting Officer (Principal Accounting Officer)	June 17, 2024	
/s/ Peter J. Barris Peter J. Barris	Director	June 17, 2024	
/s/ Eric D. Belcher Eric D. Belcher	Director	June 17, 2024	
/s/ Jennifer A. Doudna, Ph.D. Jennifer A. Doudna, Ph.D.	Director	June 17, 2024	
/s/ David R. Epstein David R. Epstein	Director	June 17, 2024	

Signature	Title	Date
/s/ Wayne A.I. Frederick, M.D. Wayne A.I. Frederick, M.D.	Director	June 17, 2024
/s/ Scott Gottlieb, M.D. Scott Gottlieb, M.D.	Director	June 17, 2024
/s/ Theodore J. Leonsis Theodore J. Leonsis	Director	June 17, 2024
/s/ Nadja West Nadja West, M.D.	Director	June 17, 2024



Christina T. Roupas T: (312) 881-6670 croupas@cooley.com

June 17, 2024

Tempus AI, Inc. 600 West Chicago Avenue, Suite 510 Chicago, Illinois 60654

Ladies and Gentlemen:

We have acted as counsel to Tempus AI, Inc., a Delaware corporation (the "Company"), in connection with the filing of a Registration Statement on Form S-8 (the "Registration Statement") with the Securities and Exchange Commission (the "Commission") covering the offering of up to 7,430,000 shares (the "Shares") of the Company's Class A common stock, par value \$0.0001 per share (the "Common Stock") issuable pursuant to the Company's 2024 Equity Incentive Plan (the "2024 Plan").

In connection with this opinion, we have examined and relied upon (a) the Registration Statement and the related prospectuses, (b) the Company's certificate of incorporation and bylaws, each as currently in effect, (c) the Plans, and (d) such other records, documents, opinions, certificates, memoranda and instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of certificates of public officials and the due authorization, execution and delivery of all documents by all persons other than the Company where authorization, execution and delivery are prerequisites to the effectiveness thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently verified such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the Plans, the Registration Statement and the related prospectuses, will be validly issued, fully paid, and nonassessable (except as to shares issued pursuant to deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

This opinion is limited to the matters expressly set forth in this letter, and no opinion has been or should be implied, or may be inferred, beyond the matters expressly stated. This opinion speaks only as to law and facts in effect or existing as of the date hereof and we have no obligation or responsibility to update or supplement this letter to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

We consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such 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 of 1933, as amended, or the rules and regulations of the Commission thereunder

Sincerely,

Cooley LLP

By: /s/ Christina T. Roupas

Christina T. Roupas

COOLEY LLP 110 N. WACKER DRIVE SUITE 4200 CHICAGO, IL 60606 T: (312) 881-6500 F: (312) 881-6598 COOLEY.COM

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Tempus AI, Inc. of our report dated February 28, 2024 relating to the financial statements which appears in Tempus AI, Inc.'s prospectus dated June 13, 2024, filed pursuant to Rule 424(b) under the Securities Act of 1933, relating to the Registration Statement on Form S-1, as amended (File No. 333-279558).

/s/ PricewaterhouseCoopers LLP Chicago, Illinois June 17, 2024

Calculation of Filing Fee Table

Form S-8 (Form Type)

TEMPUS AI, INC.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Share	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Class A Common Stock, \$0.0001						
	par value per share, 2024 Equity						
	Incentive Plan	Other(2)	7,430,000(3)	\$37.00(2)	\$274,910,000	0.00014760	\$40,576.72
Total Offering Amounts			_	\$274,910,000	_	\$40,576.72	
Total Fee Offsets			_			_	
Net Fee Due			_	_	_	\$40,576.72	

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of Class A Common Stock ("Class A Common Stock") of Tempus AI, Inc. (the "Registrant") that become issuable under the Registrant's 2024 Equity Incentive Plan (the "2024 Plan") by reason of any stock dividend, stock split, recapitalization or other similar transaction.
- (2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) of the Securities Act. The proposed maximum aggregate offering price per share and proposed maximum aggregate offering price are calculated on the basis of \$37.00 per share (the "IPO Price"), which is the initial public offering price per share of the Registrant's Class A Common Stock set forth in the Registrant's prospectus filed with the Securities and Exchange Commission on June 17, 2024 pursuant to Rule 424(b) of the Securities Act.
- (3) Represents 7,430,000 shares of Class A Common Stock reserved for future grant under the 2024 Plan. The 2024 Plan also provides that an additional number of shares will automatically be added annually to the shares authorized for issuance under the 2024 Plan on January 1st of each year, commencing on January 1, 2025 and ending on (and including) January 1, 2034, in an amount equal to a number of shares of Class A Common Stock (the "Evergreen Increase") such that the sum of (x) the remaining number of shares available under the 2024 Plan and (y) the Evergreen Increase is equal to 5% of the total number of shares of Class A Common Stock and Class B Common Stock outstanding on December 31 of the preceding year; provided, however, that the Registrant's board of directors may act prior to January 1st of a given year to provide that the Evergreen Increase for such year will be a lesser number of shares of Class A Common Stock. This explanation is provided for information purposes only. The issuance of such additional shares is not being registered on this Registration Statement.