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

SCHEDULE 13D

Under the Securities Exchange Act of 1934 (Amendment No. 2)*

Intuitive Machines, Inc.

(Name of Issuer)

Class A Common Stock (Title of Class of Securities)

46125A100 (CUSIP Number)

Kamal Seyed Ghaffarian 5937 Sunnyslope Drive Naples, FL 34119 (301) 486-3150

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

June 10, 2024

(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), Rule 13d-1(f) or Rule 13d-1(g), check the following box. \Box

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7(b) for other parties to whom copies are to be sent.

^{*} The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Page 1 of 7 pages

| 1 | Names of Reporting Persons | | | | | | |
|----|--------------------------------------|---------------|---|----------------|--|--|--|
| | Kamal Seye | d Ghaffa | rian | | | | |
| 2 | Check the A | ppropriate | Box if a Member of a Group | (a) □ (b) □ | | | |
| 3 | SEC Use On | ly | | | | | |
| 4 | Source of Fu | inds (See | Instructions) | | | | |
| | | 00 | | | | | |
| 5 | Check if disc | closure of | legal proceedings is required pursuant to Items 2(d) or 2(e) \Box | | | | |
| 6 | Citizenship or Place of Organization | | | | | | |
| | United State | United States | | | | | |
| | | 7 | Sole Voting Power | | | | |
| NU | MBER OF | | 67,434 | | | | |
| | SHARES EFICIALLY | 8 | Shared Voting Power | | | | |
| | WNED BY | | 47,201,989 | | | | |
| DF | EACH PORTING | 9 | Sole Dispositive Power | | | | |
| | PERSON | | 67,434 | | | | |
| | WITH | 10 | 67,434 Shared Dispositive Power | | | | |
| | | | | | | | |
| 11 | Aggregate A | mount Be | 47,201,989 neficially Owned by Each Reporting Person | | | | |
| | | | | | | | |
| 12 | 47,269,423 | A | Amount in Row (11) Excludes Certain Shares | | | | |
| 12 | Check II the | Aggregate | Amount in Kow (11) Excludes Certain Shares \Box | | | | |
| 13 | Percent of Cl | ass Repre | sented by Amount in Row (11) | | | | |
| | 48.5% | | | | | | |
| 14 | Type of Reporting Person | | | | | | |
| | IN | | | | | | |
| | 113 | | | | | | |

| CUSIP No. 46125A100 |
|---------------------|
|---------------------|

| 1 | Names of Re | Names of Reporting Persons | | | | | |
|----|---|------------------------------------|--|----------------|--|--|--|
| | Ghaffarian | Enterpris | ses, LLC | | | | |
| 2 | | | Box if a Member of a Group | (a) □ (b) □ | | | |
| 3 | SEC Use On | ly | | | | | |
| 4 | Source of Fu | Source of Funds (See Instructions) | | | | | |
| | 00 | 00 | | | | | |
| 5 | Check if disc | closure of | legal proceedings is required pursuant to Items $2(d)$ or $2(e)$ | | | | |
| 6 | Citizenship or Place of Organization | | | | | | |
| | Maryland | | | | | | |
| | | 7 | Sole Voting Power | | | | |
| | MBER OF | | 0 | | | | |
| | SHARES EFICIALLY | 8 | Shared Voting Power | | | | |
| 0 | WNED BY | | 43,419,059 | | | | |
| | EACH PORTING | 9 | Sole Dispositive Power | | | | |
| | PERSON WITH | | 0 | | | | |
| | WIII | 10 | Shared Dispositive Power | | | | |
| | | | 43,419,059 | | | | |
| 11 | Aggregate Amount Beneficially Owned by Each Reporting Person | | | | | | |
| | 43,419,059 | | | | | | |
| 12 | Check if the Aggregate Amount in Row (11) Excludes Certain Shares | | | | | | |
| 13 | Percent of Class Represented by Amount in Row (11) | | | | | | |
| | 46.4% | | | | | | |
| 14 | Type of Repo | rting Pers | ion | | | | |
| | 00 | | | | | | |

| CUSIP No. | 46125A100 |
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| 1 | Names of Reporting Persons | | | | | | |
|----|---|---|----------------------------|----------------|--|--|--|
| | Intuitive Ma | ichines K | G Parent, LLC | | | | |
| 2 | | | Box if a Member of a Group | (a) □ (b) □ | | | |
| 3 | SEC Use On | ly | | | | | |
| 4 | Source of Fu | Source of Funds (See Instructions) | | | | | |
| | 00 | | | | | | |
| 5 | Check if disc | Check if disclosure of legal proceedings is required pursuant to Items $2(d)$ or $2(e)$ | | | | | |
| 6 | Citizenship c | or Place of | f Organization | | | | |
| | Delaware | | | | | | |
| | • | 7 | Sole Voting Power | | | | |
| | MBER OF | | 0 | | | | |
| | SHARES EFICIALLY | 8 | Shared Voting Power | | | | |
| | WNED BY | | 1,541,809 | | | | |
| | EACH PORTING | 9 | Sole Dispositive Power | | | | |
| F | PERSON WITH | | 0 | | | | |
| | wiin | 10 | Shared Dispositive Power | | | | |
| | | | 1,541,809 | | | | |
| 11 | Aggregate Amount Beneficially Owned by Each Reporting Person | | | | | | |
| | 1,541,809 | | | | | | |
| 12 | Check if the Aggregate Amount in Row (11) Excludes Certain Shares | | | | | | |
| 13 | Percent of Class Represented by Amount in Row (11) | | | | | | |
| | 2.8% | | | | | | |
| 14 | Type of Repo | rting Pers | son | | | | |
| | 00 | | | | | | |

CUSIP No. 46125A100

| 1 | Names of Re | enorting P | prono | | | | | |
|----|---|--------------------------|--|----------------|--|--|--|--|
| 1 | Names of Reporting Persons | | | | | | | |
| | | GM Enterprises, LLC | | | | | | |
| 2 | Check the A | ppropriate | Box if a Member of a Group | (a) □ (b) □ | | | | |
| | | (0) | | | | | | |
| 3 | SEC Use On | ly | | | | | | |
| 4 | Source of Fu | inds (See] | nstructions) | | | | | |
| | 00 | | | | | | | |
| 5 | | closure of | legal proceedings is required pursuant to Items $2(d)$ or $2(e)$ | | | | | |
| 6 | Citizenship o | or Place of | Organization | | | | | |
| | Delaware | | | | | | | |
| | Delawale | 7 | Sole Voting Power | | | | | |
| NU | MBER OF | | | | | | | |
| | SHARES | 0 | | | | | | |
| | EFICIALLY | 8 | Shared Voting Power | | | | | |
| 0 | WNED BY EACH | | 2,241,121 | | | | | |
| RE | PORTING | 9 | Sole Dispositive Power | | | | | |
| I | PERSON | | 0 | | | | | |
| | WITH | 10 | Shared Dispositive Power | | | | | |
| | | | 2,241,121 | | | | | |
| 11 | Aggregate Amount Beneficially Owned by Each Reporting Person | | | | | | | |
| | 2,241,121 | | | | | | | |
| 12 | Check if the Aggregate Amount in Row (11) Excludes Certain Shares | | | | | | | |
| 13 | Percent of Class Represented by Amount in Row (11) | | | | | | | |
| | 4.0% | 4.0% | | | | | | |
| 14 | | Type of Reporting Person | | | | | | |
| | 00 | | | | | | | |
| | | | | | | | | |

Explanatory Note

This Amendment No. 2 to Schedule 13D (this "Amendment No. 2") amends and supplements the statement on Schedule 13D filed with the United States Securities and Exchange Commission on February 8, 2024 (as amended to date, the "Schedule 13D"), relating to the Class A common stock, par value \$0.0001 per share (the "Class A Common Stock"), of Intuitive Machines, Inc., a Delaware corporation (the "Issuer"). Capitalized terms used herein without definition shall have the meaning set forth in the Schedule 13D.

Item 4. Purpose of Transaction.

Item 4 of the Schedule 13D is hereby amended and supplemented with the following:

June 2024 Stock Sales

On June 10, 2024, Ghaffarian Enterprises, LLC exchanged 4,800,000 Common Units for an equal number of shares Class A Common Stock (the "Exchange"). In connection with the Exchange, 4,800,000 shares of Class C Common Stock held by Ghaffarian Enterprises, LLC were canceled by the Issuer for no consideration.

Following the Exchange on June 10, 2024, Ghaffarian Enterprises, LLC sold 4,800,000 shares of Class A Common Stock at a price of \$4.00 per share in an open market transaction on the Nasdaq Stock Market pursuant to Rule 144 (the "June 2024 Stock Sale").

Following the June 2024 Stock Sale, Dr. Ghaffarian continues to be the largest shareholder of the Issuer. Dr. Ghaffarian, individually and through the other Reporting Persons that he controls, may be deemed to beneficially own an aggregate of 47,269,423 shares of Class A Common Stock, which includes 39,025,852 shares of Class C Common Stock, 3,619,040 shares of Class A and 5,000 shares of Series A Preferred Stock, thereby holding 45.3% of the voting power of the Issuer and representing 46% of the Class A Common Stock of the Issuer as calculated in accordance with Rule 13d-3.

The June 2024 Stock Sale was effected by Dr. Ghaffarian solely in order to provide funds for other investments and does not reflect any views regarding the value or prospects of the Issuer. Dr. Ghaffarian is fully committed to leading the Issuer to continued success as its Chairman and largest shareholder.

Item 5. Interest in Securities of the Issuer.

Item 5(a) - (c) of the Schedule 13D is hereby amended and supplemented with the following:

(a) – (b) The following sets forth, as of the date of this Schedule 13D, the aggregate number of shares of Class A Common Stock and percentage of Class A Common Stock beneficially owned by each of the Reporting Persons, as well as the number of shares of Class A Common Stock as to which each Reporting Person has the sole power to vote or to direct the vote, shared power to vote or to direct the vote, sole power to dispose or to direct the disposition of, or shared power to dispose or to direct the disposition of, as of the date hereof, based on 53,723,453 shares of Class A Common Stock outstanding as of May 8, 2024, as disclosed in the Issuer's quarterly report on Form 10-Q, as filed with the Securities and Exchange Commission on May 14, 2024.

| Reporting Person | Amount beneficially owned | Percent of class: | Sole power to vote or to direct the vote: | Shared power to vote or to direct the vote: | Sole power to dispose or to direct the disposition of: | Shared power to dispose or to direct the disposition of: |
|-----------------------------------|---------------------------------|----------------------|--|--|--|--|
| Kamal Seyed Ghaffarian | 47,269,423 | 48.5% | 67,434 | 47,201,989 | 67,434 | 47,201,989 |
| Ghaffarian Enterprises, LLC | 43,419,059 | 46.4% | 0 | 43,419,059 | 0 | 43,419,059 |
| Intuitive Machines KG Parent, LLC | 1,541,809 | 2.8% | 0 | 1,541,809 | 0 | 1,541,809 |
| GM Enterprises, LLC | 2,241,121 | 4.0% | 0 | 2,241,121 | 0 | 2,241,121 |

The securities reported herein include (i) 43,650,383 Common Units, which may be redeemed for shares of Class A Common Stock on a one-toone basis, of which 35,606,013 Common Units are held by Ghaffarian Enterprises, LLC, 1,541,809 Common Units are held by Intuitive Machines KG Parent, LLC and 2,241,121 Common Units are held by GM Enterprises, LLC; (ii) 3,551,606 shares of Class A Common Stock held directly by Ghaffarian Enterprises, LLC; and (iii) 67,434 shares of Class A Common Stock held directly by Dr. Ghaffarian, which were acquired upon the vesting of restricted stock units ("RSUs") on June 6, 2024.

The amount of Common Units reported above includes 4,624,531 Earn Out Units which vest dependent upon the satisfaction of the certain milestones as previously described in the Schedule 13D.

Dr. Ghaffarian is the sole trustee of a revocable trust, which is the sole member of Ghaffarian Enterprises, LLC and the sole managing member of Intuitive Machines KG Parent, LLC, and GM Enterprises, LLC. As a result, Dr. Ghaffarian may be deemed to share beneficial ownership of the securities reported herein, but disclaims beneficial ownership.

(c) On June 6, 2024, Dr. Ghaffarian received an award of 55,680 RSUs as compensation for his service as a director of the Issuer. Each RSU represents a contingent right to receive one share of Class A Common Stock. The RSUs will vest in full on the earlier to occur of the first anniversary of the grant date and the date of the next annual meeting following the grant date. The reporting person elected to defer receipt of these RSUs until his retirement from the Issuer's Board of Directors.

Except as described herein and the June 2024 Stock Sale described in Item 4 above, since the date of the Reporting Persons' most recent filing on Schedule 13D, the Reporting Persons have not effected any transactions with respect to the Class A Common Stock.

(d) None.

(e) Not applicable.

SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: June 11, 2024

Kamal Seyed Ghaffarian

/s/ Kamal Seyed Ghaffarian

Ghaffarian Enterprises, LLC

By: /s/ Kamal Seyed Ghaffarian Name: Kamal Seyed Ghaffarian Title: Trustee of the Sole Member

Intuitive Machines KG Parent, LLC

By:/s/ Kamal Seyed GhaffarianName:Kamal Seyed GhaffarianTitle:Trustee of the Sole Managing Member

GM Enterprises, LLC

 By:
 /s/ Kamal Seyed Ghaffarian

 Name:
 Kamal Seyed Ghaffarian

Title: Trustee of the Sole Managing Member