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

SCHEDULE 13D

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

QT Imaging Holdings, Inc.
(Name of Issuer)

Common Stock, \$0.0001 par value
(Title of Class of Securities)

746962 109
(CUSIP Number)

Jeffrey C. Selman
DLA Piper LLP (US)
555 Mission Street, Suite 2400
San Francisco, CA 94105-2933
(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

March 4, 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 §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

* 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.

1.	Names of Reporting Persons. GigAcquisitions5, LLC	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3.	SEC Use Only	
4.	Source of Funds (See Instructions) WC	
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)	
6.	Citizenship or Place of Organization Delaware, USA	
Number of Shares Beneficially Owned by Each Reporting Person With	7.	Sole Voting Power 0
	8.	Shared Voting Power 7,513,728 (1)(2)
	9.	Sole Dispositive Power
	10.	Shared Dispositive Power 7,513,728 (1)(2)
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 7,513,728	
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)	
13.	Percent of Class Represented by Amount in Row (11) 33.7% (3)	
14.	Type of Reporting Person (See Instructions) PN	

Note: All share numbers on these cover pages are presented as shares of Common Stock, \$0.0001 par value (the "**Common Stock**") of QT Imaging Holdings, Inc., a Delaware corporation (the "**Issuer**"), as further described herein.

- (1) This number of shares of Common Stock consists of: (i) 7,513,728 shares of Common Stock owned directly by the Reporting Person and (ii) 889,364 Private Warrants that are exercisable within 60 days of March 4, 2024.
- (2) The Common Stock and Private Warrants are held directly by the Reporting Person. The Common Stock and Private Warrants held by the Reporting Person are beneficially owned by Dr. Avi Katz, the manager of the Reporting Person and Chairman of the Board of the Issuer, who has sole voting and dispositive power over the shares held by GigAcquisitions5, LLC.
- (3) Calculation is based upon 21,437,216 shares of Common Stock of the Issuer issued and outstanding as of the closing of the Issuer's business combination reported on the Issuer's Form 8-K filed with the Securities and Exchange Commission on March 8, 2024.

1.	Names of Reporting Persons. Dr. Avi S. Katz	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3.	SEC Use Only	
4.	Source of Funds (See Instructions) WC	
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)	
6.	Citizenship or Place of Organization USA and Israel	
Number of Shares Beneficially Owned by Each Reporting Person With	7.	Sole Voting Power 0
	8.	Shared Voting Power 7,513,728
	9.	Sole Dispositive Power 0
	10.	Shared Dispositive Power 7,513,728
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 7,513,728	
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13.	Percent of Class Represented by Amount in Row (11) 33.7%	
14.	Type of Reporting Person (See Instructions) IN	

Item 1. Security and Issuer

This Schedule 13D relates to shares of Common Stock, \$0.0001 par value (the “**Common Stock**”) of QT Imaging Holdings, Inc., a Delaware corporation (the “**Issuer**”). The address of the Issuer’s principal executive offices is 3 Hamilton Landing, Suite 160, Novato, CA 94949.

Item 2. Identity and Background

- (a) This Schedule 13D is being filed by GigAcquisitions5, LLC, a Delaware limited liability company (“**GigAcquisitions5**”), and Dr. Avi S. Katz, a citizen of the United States and Israel who is the manager of GigAcquisitions5 (each, a “**Reporting Person**” and, collectively, the “**Reporting Persons**”). Dr. Katz is currently a member of the Board of the Issuer.
- (b) The business address of the Reporting Persons is 1731 Embarcadero Road, Suite 200, Palo Alto, California 94303.
- (c) The Reporting Persons may be deemed to constitute a group for purposes of Rule 13d-3 under the Securities and Exchange Act of 1934, as amended (the “**Exchange Act**”).
- (d) During the last five years, none of the Reporting Persons (i) has been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) was a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Consideration

Prior to the initial public offering of GigCapital5, Inc. (“**GigCapital5**”), a Delaware corporation (now named QT Imaging Holdings, Inc. following the closing of the business combination and the Issuer), GigAcquisitions5 purchased 10,047,500 shares of Common Stock for an aggregate purchase price of \$25,000, or approximately \$0.002488 per share (the “**Founder Shares**”). On February 12, 2021, in connection with its initial public offering, GigAcquisitions5 surrendered 4,312,500 Founder Shares for no consideration, resulting in GigAcquisitions5 holding 5,735,000 Founder Shares. In connection with such initial public offering, GigAcquisitions5 purchased 795,000 units (the “**Private Units**”) at a purchase price of \$10.00 per Private Unit with each such unit consisting of one share of Common Stock and one of one warrant. Each whole warrant (a “**Private Warrant**”) is exercisable for one share of Common Stock at a price of \$11.50 per full share. GigAcquisitions5 obtained the funds to purchase the Founder Shares and the Private Units from its working capital. On March 4, 2024, in connection with the closing of the Issuer’s business combination, GigAcquisitions5 elected to partially convert \$943,640 in principal balance outstanding under a convertible Working Capital Note into 94,364 shares of Common Stock and 94,364 Private Warrants pursuant to the terms of such convertible Working Capital Note.

Item 4. Purpose of Transaction

Business Combination

On March 4, 2024, the Issuer announced the consummation of its business combination (the “**Business Combination**”) with QT Imaging, Inc. (“**QT Imaging**”) on March 4, 2024, pursuant to that certain Business Combination Agreement, dated as of December 8, 2022, by and among GigCapital5, QT Merger Sub, Inc. (“**Merger Sub**”), and QT Imaging (the “**Business Combination Agreement**”) following the approval at the annual meeting of the stockholders of GigCapital5 held on February 20, 2024 (the “**Annual Meeting**”). In connection with the consummation of the Business Combination, the registrant changed its name from GigCapital5, Inc. to QT Imaging Holdings, Inc. on March 4, 2024.

This summary is qualified in its entirety by reference to the text of the Business Combination Agreement, as amended, which is attached hereto as Exhibit 7.1, Exhibit 7.2, Exhibit 7.3, Exhibit 7.4, Exhibit 7.5 and Exhibit 7.6, and incorporated by reference.

Registration Rights Agreement

On September 23, 2021, GigCapital5 entered into a Registration Rights Agreement with GigAcquisitions5 and other stockholders of GigCapital5. These holders will be entitled to make up to two demands, excluding short form registration demands, that the Issuer register all of the shares of the Common Stock, as well as the Private Warrants, and the shares of the Common Stock issued or issuable upon the exercise of any Private Warrants, for sale under the Securities Act of 1933, as amended. In addition, these holders will have “piggy-back” registration rights to include their securities in other registration statements filed by the Issuer. The Issuer will bear the expenses incurred in connection with the filing of any such registration statements. There will be no penalties associated with delays in registering the securities under such registration rights agreement. This summary is qualified in its entirety by reference to the text of the Registration Rights Agreement, which is included as Exhibit 7.7 and incorporated by reference.

General

The Reporting Persons acquired the securities described in this Schedule 13D for investment purposes and intend to review their investments in the Issuer on a continuing basis. Any actions the Reporting Persons might undertake may be made at any time and from time to time without prior notice and will be dependent upon the Reporting Persons’ review of numerous factors, including, but not limited to: an ongoing evaluation of the Issuer’s business, financial condition, operations and prospects; price levels of the Issuer’s securities; general market, industry and economic conditions; the relative attractiveness of alternative business and investment opportunities; and other future developments.

Subject to the terms of the Registration Rights Agreement, the Reporting Persons may acquire additional securities of the Issuer, or retain or sell all or a portion of the securities then held, in the open market or in privately negotiated transactions. In addition, the Reporting Persons may engage in discussions with management, the Board, and securityholders of the Issuer and other relevant parties or encourage, cause or seek to cause the Issuer or such persons to consider or explore extraordinary corporate transactions, such as: a merger, reorganization or other transaction that could result in the de-listing or de-registration of the Common Stock; sales or acquisitions of assets or businesses; changes to the capitalization or distribution policy of the Issuer; or other material changes to the Issuer’s business or corporate structure, including changes in management or the composition of the Board. There can be no assurance, however, that any Reporting Person will propose such a transaction, that any proposed transaction would receive the requisite approvals from the respective governing bodies, as applicable, or that any such transaction would be successfully implemented.

Except as disclosed in this Item 4, the Reporting Persons do not have any current plans or proposals that relate to or would result in any of the events described in clauses (a) through (j) of the instructions to Item 4 of Schedule 13D. The Reporting Persons, however, will take such actions with respect to the Reporting Persons’ investments in the Issuer as deemed appropriate in light of existing circumstances from time to time and reserve the right to acquire or dispose of securities of the Issuer, to enter into hedging relationships with respect to such securities, or to formulate other purposes, plans, or proposals in the future depending on market conditions and/or other factors.

Item 5. Interest in Securities of the Issuer

(a) and (b)

The following sets forth, as of the date of this Schedule 13D, the aggregate number of shares of Common Stock and percentage of Common Stock beneficially owned by each of the Reporting Persons, as well as the number of shares of 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 21,437,216 shares of Common Stock outstanding as of March 4, 2024 following the closing of the Business Combination:

Reporting Persons	Number of Shares With Sole Voting and Dispositive Power	Number of Shares With Shared Voting and Dispositive Power	Aggregate Number of Shares Beneficially Owned	Percentage of Class Beneficially Owned
GigAcquisitions5, LLC(1)	7,513,728 (2)	7,513,728 (2)	7,513,728 (2)	33.7%

- (1) The shares of GigAcquisitions5 are beneficially owned by Dr. Katz, a Chairman of the Board of the Issuer, and the manager of GigAcquisitions5, who has sole voting and dispositive power over the shares held by GigAcquisitions5. Accordingly, the shares of Common Stock and Private Warrants held by GigAcquisitions5, subject to the interests of such other holders, are indirectly and beneficially owned by Dr. Katz.
- (2) This number of shares of Common Stock consists of: (i) 7,513,728 shares of Common Stock owned directly by the Reporting Person and (ii) 889,364 Private Warrants that are exercisable within 60 days of March 8, 2024.

- (c) Except as described in Item 3 and Item 4, the Reporting Persons have not effected any transactions involving the Common Stock and Private Warrants in the 60 days prior to filing this Schedule 13D.
- (d) None.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

Item 4 above summarizes certain provisions of the Business Combination Agreement and the Registration Rights Agreement and is incorporated herein by reference. Copies of such agreements are attached as an exhibit to this Schedule 13D, and each is incorporated herein by reference.

Except as set forth herein, none of the Reporting Persons has any contracts, arrangements, understandings or relationships (legal or otherwise) with any person with respect to any securities of the Issuer, including but not limited to any contracts, arrangements, understandings or relationships concerning the transfer or voting of such securities, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or losses, or the giving or withholding of proxies.

Item 7. Material to Be Filed as Exhibits

- 7.1 Business Combination Agreement, dated as of December 8, 2022, by and among GigCapital5, Inc., QTI Merger Sub, Inc. and QT Imaging, Inc. (included as Annex A to the Final Proxy Statement/Prospectus filed under Rule 424(b)(3) on February 7, 2024)
- 7.2 First Amendment to Business Combination, dated May 5, 2023, by and among GigCapital5, Inc., QTI Merger Sub, Inc. and QT Imaging, Inc. (included as Annex A to Final Proxy Statement/Prospectus filed under Rule 424(b)(3) on February 7, 2024).
- 7.3 Second Amendment to Business Combination Agreement, dated as of September 21, 2023, by and among GigCapital5, Inc., QTI Merger Sub, Inc. and QT Imaging, Inc. (included as Annex A to Final Proxy Statement/Prospectus filed under Rule 424(b)(3) on February 7, 2024).
- 7.4 Third Amendment to Business Combination Agreement, dated as of November 10, 2023, by and among GigCapital5, Inc., QTI Merger Sub, Inc. and QT Imaging, Inc. (included as Annex A to Final Proxy Statement/Prospectus filed under Rule 424(b)(3) on February 7, 2024).
- 7.5 Fourth Amendment to Business Combination Agreement, dated November 22, 2023, by and among GigCapital5, Inc., QTI Merger Sub, Inc. and QT Imaging, Inc. (included as Annex A to Final Proxy Statement/Prospectus filed under Rule 424(b)(3) on February 7, 2024).
- 7.6 Fifth Amendment to Business Combination Agreement, dated February 2, 2024, by and among GigCapital5, Inc., QTI Merger Sub, Inc. and QT Imaging, Inc. (included as Annex A to Final Proxy Statement/Prospectus filed under Rule 424(b)(3) on February 7, 2024).
- 7.7 Registration Rights Agreement, dated September 23, 2021, by and among GigCapital5, Inc., GigAcquisitions5, LLC and certain other security holders named therein (incorporated by reference to Exhibit 10.6 to GigCapital5's Current Report on Form 8-K filed with the SEC on September 29, 2021).
- 7.8 Joint Filing Agreement dated March 18, 2024.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, each of the undersigned certifies that the information set forth in the Statement is true, complete and correct.

Date: March 18, 2024

GigAcquisitions5, LLC

By: /s/ Dr. Avi S. Katz
Dr. Avi S. Katz
Manager

/s/ Dr. Avi S. Katz
Dr. Avi S. Katz

EXHIBIT INDEX

<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>
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7.8	Joint Filing Agreement dated March 18, 2024.

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k)(1) promulgated under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree that they are jointly filing this statement on Schedule 13D. Each of them is responsible for the timely filing of such statement and any amendments thereto, and for the completeness and accuracy of the information concerning such person contained therein; but none of them is responsible for the completeness or accuracy of the information concerning the other persons making the filing, unless such person knows or has reason to believe that such information is inaccurate.

IN WITNESS WHEREOF, the parties hereto have caused this Joint Filing Agreement to be duly executed as of this 18th day of March, 2022.

GigAcquisitions5, LLCBy: /s/ Dr. Avi S. Katz

Dr. Avi S. Katz

Manager

/s/ Dr. Avi S. Katz

Dr. Avi S. Katz