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

Form 6-K

Report of Foreign Private Issuer Pursuant to Rule 13a-16 or 15d-16 under the Securities Exchange Act of 1934

For the month of May 2024

Commission file number: 001-41334

RAIL VISION LTD. (Translation of registrant's name into English)

15 Ha'Tidhar St

Ra'anana, 4366517 Israel (Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ⊠ Form 40-F □

CONTENTS

Attached hereto and incorporated herein is the Registrant's press release issued on May 24, 2024, titled "Rail Vision Reflects on Positive Operational Highlights Since the Start of 2024: scaling up commercialization."

EXHIBIT INDEX

 Exhibit No.

 99.1
 Press release issued by Rail Vision Ltd. on May 24, 2024, titled "Rail Vision Reflects on Positive Operational Highlights Since the Start of 2024: scaling up commercialization."

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Rail Vision Ltd.

By: /s/ Ofer Naveh

Name: Ofer Naveh Title: Chief Financial Officer

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Date: May 24, 2024

Rail Vision Reflects on Positive Operational Highlights Since the Start of 2024: Scaling Up Commercialization

- Announced first-ever commercial installation of its AI-driven systems in a national railways line
- Achieved regulatory approval and certificate for railway operation in Europe
- Joined NVIDIA metropolis to boost railway safety
- Received order from a Class 1 US railroad company for its AI-based safety products
- Expanded USA footprint with a national distributer engagement for Rail Vision AI- driven railway system US
- Received an order for its AI-driven ShuntingYard product from Loram, a leading US-based provider of railway track maintenance equipment and services
- Received notice of allowance for US patent on AI-powered railway obstacle detection system

Ra'anana, Israel, May 24, 2024 (GLOBE NEWSWIRE) -- Rail Vision Ltd. (Nasdaq: RVSN) (the "Company"), a technology company at the forefront of revolutionizing railway safety and the data-related SaaS market, today shared several commercial and technological accomplishments since the start of 2024, including valuable developments with tier one rail companies in the United States, the expansion of its distribution network and additional new partnerships and technological advancements. As Rail Vision progresses through 2024, the Company remains focused on scaling up to capitalize on opportunities with industry leaders, especially in United States.

Additional Q1 2024 and recent key milestones and achievements:

- Revealed its next generation computing unit for its accident prevention AI-based ADAS products MainLine and ShuntingYard
- Received notice of allowance for US patent on AI-powered railway obstacle detection system
- Received patent approval from the Indian patent office
- Received \$1 million order out of a contract valued at up to \$5 million in potential follow-on orders with leading US-based rail and leasing services company

"Recent months were fruitful for the company. We significantly expanded our reach in the US, advanced our technology, and strengthened our IP protection," said Shahar Hania, CEO of Rail Vision. "We started 2024 by securing over \$5 million to fuel our business through a pair of financing transactions . In the last five months, we achieved important milestones, including the first-ever commercial installation of our products, several engagements with US industry leaders, a significant regulatory certification in Europe, and multiple patent approvals. Looking ahead, we plan to bolster our global awareness as a provider of innovative and advanced railway safety."

About Rail Vision Ltd.

Rail Vision is a technology company that is seeking to revolutionize railway safety and the data-related market. The Company has developed cutting-edge, artificial intelligence-based, industry-leading technology specifically designed for railways. The Company has developed its railway detection and systems to save lives, increase efficiency, and dramatically reduce expenses for the railway operators. Rail Vision believes that its technology will significantly increase railway safety around the world, while creating significant benefits and adding value to everyone who relies on the train ecosystem: from passengers using trains for transportation to companies that use railways to deliver goods and services. In addition, the company believes that its technology has the potential to advance the revolutionary concept of autonomous trains into a practical reality. For more information, please visit https://www.railvision.io/

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act and other securities laws. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements. For example, the Company is using forward-looking statements when it discusses its plan to bolster its global awareness as a provider of innovative and advanced railway safety. Forward-looking statements are not historical facts, and are based upon management's current expectations, beliefs and projections, many of which, by their nature, are inherently uncertain. Such expectations, beliefs and projections are expressed in good faith. However, there can be no assurance that management's expectations, beliefs and projections will be achieved, and actual results may differ materially from what is expressed in or indicated by the forward-looking statements. Forward-looking statements are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the forward-looking statements. For a more detailed description of the risks and uncertainties affecting the Company, reference is made to the Company's reports filed from time to time with the Securities and Exchange Commission ("SEC"), including, but not limited to, the risks detailed in the Company's annual report on Form 20-F filed with the SEC on March 28, 2024. Forward-looking statements speak only as of the date the statements are made. The Company assumes no obligation to update forward-looking statements to reflect actual results, subsequent events or circumstances, changes in assumptions or changes in other factors affecting forward-looking information except to the extent required by applicable securities laws. If the Company does update one or more forward-looking statements, no inference should be drawn that the Company will make additional updates with respect thereto or with respect to other forward-looking statements. References and links to websites have been provided as a convenience, and the information contained on such websites is not incorporated by reference into this press release. Rail Vision is not responsible for the contents of third-party websites.

Investor Relations

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