

PROSPECTUS SUPPLEMENT
(To Prospectus Dated August 10, 2022)

\$16,500,000



Class A Common Stock

This prospectus supplement amends and supplements the information in the prospectus, dated August 10, 2022 (the “Base Prospectus”), as supplemented by our prospectus supplement dated August 25, 2022 (the “Prior Prospectus Supplement” and, together with the Base Prospectus, the “Prior Prospectus”) both filed with the Securities and Exchange Commission as a part of our registration statement on Form S-3 (File No. 333-266444), relating to the offer and sale of up to \$150,000,000 of shares of our Class A common stock, \$0.0001 par value per share, pursuant to the Controlled Equity OfferingSM Sales Agreement dated as of August 24, 2022 (the “Sales Agreement”). This prospectus supplement is being filed to reflect H.C. Wainwright & Co., LLC’s role as our sole agent (the “Agent”), under the Sales Agreement. Accordingly, each reference to the term “Agent” or “Agents” in the Prior Prospectus is hereby amended to refer only to H.C. Wainwright & Co., LLC. This prospectus supplement should be read in conjunction with the Prior Prospectus, and is qualified by reference thereto, except to the extent that the information herein amends or supersedes the information contained in the Prior Prospectus. This prospectus supplement is not complete without, and may only be delivered or utilized in connection with, the Prior Prospectus and any future amendments or supplements thereto.

Our Class A common stock is listed on the Nasdaq Global Market under the symbol “RANI.” On May 16, 2025, the closing sale price of our Class A common stock on the Nasdaq Global Market was \$0.64 per share.

As of March 21, 2025, the aggregate market value of our outstanding Class A common stock held by non-affiliates, or public float, was approximately \$50.7 million, based on 32,706,577 shares of outstanding Class A common stock held by non-affiliates, at a price of \$1.55 per share, which was the last reported sale price of our Class A common stock on the Nasdaq Global Market on March 21, 2025. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on the registration statement of which this prospectus supplement and the Prior Prospectus is a part in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75.0 million. As of the date hereof, we have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus supplement.

Sales of our Class A common stock, if any, under this prospectus supplement and the Prior Prospectus may be made by any method permitted by law that is deemed an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended (the “Securities Act”). The Agent is not required to sell any specific number or dollar amount of shares of our Class A common stock. The Agent will use commercially reasonable efforts to sell on our behalf all of the Class A common stock requested to be sold by us, consistent with its normal trading and sales practices, on mutually agreed terms between the Agent and us, as applicable. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The Agent will be entitled to compensation at a commission rate of up to 3.0% of the gross proceeds of shares sold under the Sales Agreement. In connection with the sale of our Class A common stock on our behalf, the Agent will be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation of the Agent will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to the Agent with respect to certain liabilities, including liabilities under the Securities Act and the Securities Exchange Act of 1934, as amended (the “Exchange Act”). See “[Plan of Distribution](#)” beginning on page S-1 of this prospectus supplement for additional information regarding the compensation to be paid to the Agent.

Investing in our Class A common stock involves a high degree of risk. Please read the information contained in and incorporated by reference under the heading “[Risk Factors](#)” beginning on page S-6 of the Prior Prospectus Supplement and under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus supplement and the Prior Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the Prior Prospectus. Any representation to the contrary is a criminal offense.

H.C. Wainwright & Co.

The date of this prospectus supplement is May 19, 2025.

PLAN OF DISTRIBUTION

Under the Sales Agreement, we may from time to time issue and sell shares of our Class A common stock having an aggregate offering price of up to \$16,500,000 through the Agent acting as sales agent. Sales of the shares of our Class A common stock, if any, may be made on the Nasdaq Stock Market at market prices and such other sales as agreed upon by us and the Agent. A copy of the Sales Agreement was filed as an exhibit to a Current Report on Form 8-K dated August 25, 2022.

We will submit orders to the Agent relating to the sale of shares of our Class A common stock under the Sales Agreement on any given day. Upon delivery of a placement notice to the Agent and subject to the terms and conditions of the Sales Agreement, such Agent may offer and sell shares of our Class A common stock by any method permitted by law deemed to be an “at the market offering,” as defined in Rule 415(a)(4) promulgated under the Securities Act. We may instruct such Agent not to sell Class A common stock if the sales cannot be effected at or above the price designated by us from time to time. We or the Agent may suspend or terminate this offering of Class A common stock upon notice and subject to other conditions.

We will pay the Agent commissions, in cash, for its services in acting as agent in the sale of our Class A common stock. The Agent is entitled to compensation at a commission rate of up to 3.0% of the gross sales price per share sold by such Agent under the Sales Agreement. Because there is no minimum offering amount required as a condition of this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. We have also agreed to reimburse a portion of the Agent’s expenses, including the legal fees, in connection with this offering, and disbursements of its legal counsel, in an amount not to exceed \$75,000 in connection with the execution of the Sales Agreement, which was paid at commencement of the offering and in an amount not to exceed \$25,000 per calendar quarter thereafter in connection with any updates at the time of certain filings as described in the Sales Agreement and \$30,000 for due diligence expenses in connection with this prospectus supplement. We estimate that the total expenses for the offering, excluding compensation and reimbursements, if any, payable to the Agent under the terms of the Sales Agreement, will be approximately \$300,000.

Settlement for sales of shares of Class A common stock will occur on the first trading day following the date on which any sales are made (or such shorter settlement cycle as may be in effect under the Exchange Act from time to time), or on some other date that is agreed upon by us and the Agent in connection with a particular transaction, in return for payment of the net proceeds to us. Sales of our Class A common stock as contemplated in this prospectus supplement and the accompanying prospectus will be settled through the facilities of The Depository Trust Company or by such other means as we and the Agent may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

The Agent acts as our sales agent and uses their commercially reasonable efforts, consistent with its normal trading and sales practices. In connection with the sale of the shares of Class A common stock on our behalf, the Agent will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of such Agent will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to the Agent against certain civil liabilities, including liabilities under the Securities Act.

The offering of shares of our Class A common stock pursuant to the Sales Agreement will terminate upon the earlier of (1) the sales of all shares of our Class A common stock subject to the Sales Agreement, or (2) the termination of the Sales Agreement as permitted therein. We and the Agent may each terminate the Sales Agreement at any time upon ten days’ prior notice.

The Agent and its affiliates may in the future provide various investment banking, commercial banking and other financial services for us, our subsidiaries and our affiliates, for which services they may in the future receive customary fees. To the extent required by Regulation M, the Agent will not engage in any market-making activities involving our Class A common stock while the offering is ongoing under this prospectus supplement.

This prospectus supplement and the accompanying prospectus in electronic format may be made available on a website maintained by the Agent, and the Agent may distribute this prospectus supplement and the accompanying prospectus electronically.