

RAHUL PRAKASH

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EDUCATION

Rice University, Houston, TX

May 2026 (expected graduation)

- *Majors*: B.A. in Statistics; B.A. in Operations Research GPA: 3.7/4.0
- *Minors*: Data Science; Financial Computation and Modeling
- *Relevant Coursework*: Computational Thinking, Data Structures and Algorithms, Stochastic Models, Statistics and Probability for Data Science, Linear Regression, Large Scale Optimization, R for Data Science, Operations Research and Optimization, Multivariable Calculus, Linear Algebra

Sidwell Friends School, Washington, DC

June 2022

- ACT: 36/36 | Captain of Varsity Tennis Team, All-Met Honorable Mention (2022) GPA: 3.8/4.0
- Awards: AP Scholar Award | National Merit Commended Scholar | US Presidential Scholar Nominee

SKILLS

Python, R, SQL, Java, Matlab, JMP, HTML, CSS, PHP, JavaScript, Pandas, Scikit-learn, Machine Learning, Predictive Modeling, Statistical Analysis, Linear and Integer Programming

RESEARCH EXPERIENCE

Biokind Analytics – Data Analyst

Spring 2023-Present

- Collaborate with healthcare non-profit organizations (Nora's Home and Children at Risk), transforming large, unstructured datasets into insightful data-driven analyses and actionable recommendations using statistical methods and data science techniques targeted at improving program efficiency
- Develop intuitive data visualizations to communicate findings effectively to stakeholders and decision makers
- Present findings at the end of each semester to both the nonprofit and the Biokind Analytics Chapter

SABR Diamond Dollars Case Competition – Finalist

March 2023

- Team finished runner up in the 2023 Diamond Dollars Case Competition at the SABR Sports Analytics Conference, the biggest baseball analytics conference in the country with over 25 teams competing
- Developed a Markov Chain model trained on 700,000+ pitches from the 2022 MLB season and utilized transition probabilities, simulation modeling, and weighting to reimagine the results of select MLB games if the home umpire did not miss any ball-strike calls
- Presented findings to MLB executives and later invited to present to the Houston Astros R&D department

Rice Data Science Club – Data Education and Exploration Program Participant

Aug 2022-Dec 2022

- Analyzed over 467,000 data points to understand the relationship between performance and NBA player salary, utilizing Python libraries Scikit-learn and Matplotlib to perform data analytics and machine learning
- Crafted predictive models with Random Forest and KNN algorithms, achieving 95% accuracy

Davidson College - Research Assistant

Spring 2021-Fall 2021

- Conducted independent research projects with Davidson College Math and CS Professor Tim Chartier
- Leveraged simulation modeling techniques to develop a win probability model using personalized inputs for a specific player to identify critical moments, compiling findings into a 15-page research paper
- Utilize JMP and partition trees to predict 2021 MLB All Star lineups based on previous data; predictions ranked in the 97th percentile of all submitted predictions to ESPN and research posted on [Davidson CatsStats website](#)

Other Independent Projects

Fall 2022-Present

- Analyzed network resilience of Erdos-Renyi and Upa graph models faced with random and targeted attacks
- Developed an algorithm for calculating the Rooted Directed Minimum Spanning Tree of a graph and applied it to elucidating the transmission map of a bacterial infection outbreak in 2011
- Utilized a Markov Chain model of various orders to predict future behavior of stocks based on past performance

OTHER WORK EXPERIENCE/ACTIVITIES

The Edgemoor Club - Tennis Professional

Summer 2022, Summer 2023

- Provided private lessons to over 20 clients on a weekly basis and directed junior and adult programming

Other Activities: Rice INFORMS (Operations Research Club), Sports Data Modeling Club, Practice Player for Men and Women's Division I Tennis Team, Club Tennis, South Asian Society