### RAHUL PRAKASH

<u>Linkedin • rpp5@rice.edu</u> • 301.633.3171 • <u>Digital Portfolio</u>

#### **EDUCATION**

#### RICE UNIVERSITY, Houston, TX

May 2026 (expected graduation)

- Majors: B.A. in Statistics; B.A. in Operations Research
- Minors: Data Science; Financial Computation and Modeling
- Relevant Coursework: Computational Thinking, Data Structures and Algorithms, Statistics and Probability for Data Science, R for Data Science, Introduction to Operations Research, Multivariable Calculus, Linear Algebra, Principles of Economics, Financial Accounting,

# SIDWELL FRIENDS SCHOOL, Washington, DC

June 2022 GPA: 3 8/4 0

GPA: 3.63/4.0

- ACT: 36/36 | PSAT 1460/1520 (99<sup>th</sup> percentile)
- Awards: AP Scholar Award | National Merit Commended Scholar | US Presidential Scholar Nominee

#### RESEARCH EXPERIENCE

#### DATA EXPLORATION AND EXPERIENTIAL PROJECTS (DEEP)

Fall 2022

- Analyzed correlation between NBA player salary and performance metrics using 500,000 data points from 1984-2018
- Applied Python data manipulation libraries including Scikit-learn and Matplotlib towards data analysis
- Utilized R to create Random Forest and KNN models, achieving an average prediction accuracy of 95%

BIOKIND ANALYTICS Spring 2023

- Team performed data analysis for Children at Risk, a nonprofit focused on addressing the quality of life and education for children through research and advocacy
- Utilized R and other statistical methods to analyze > 300,000 data points on Texas schools between 2019-2022
- Concluded with actionable steps for Children at Risk, and invited to continue research that following summer

#### SABR DIAMOND DOLLARS SPORTS ANALYTICS COMPETITION

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
- Built a Markov Chain model trained on the 2022 MLB season to re-imagine the results of select MLB games if the umpire did not miss any ball-strike calls
- Presented findings to a panel of MLB front office executives and later invited to present to the Houston Astros R&D department

### OTHER COMPUTER SCIENCE 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

#### TENNIS ANALYTICS

Spring 2021-Fall 2021

- Conducted independent research projects with Davidson College Math and CS Professor Tim Chartier
- Investigated the mental side of tennis through self-coded win probability model using personalized inputs for a specific player to identify critical moments, compiling findings into 15-page research paper
- Used JMP programming to predict 2021 MLB All Star lineups based on previous data; my predictions ranked in the 97th percentile of all submitted predictions to ESPN

## OTHER WORK EXPERIENCE/ACTIVITIES/SKILLS

**TENNIS COACH** 

Summer 2018-Summer 2023

- Tennis professional at the Edgemoor Club, one of the top tennis clubs in the country
- Provided private lessons to over 20 clients on a weekly basis and directed junior and adult programming

<u>ACTIVITIES</u>: Tech Solutions Associate for Global Research Consulting at Rice, Operations Research Department Undergraduate Student Researcher, Rice Undergraduate Investment Fund, Practice

SKILLS: Python, Java, R, SQL, Linear Programming, Excel (advanced), Word (advanced), Powerpoint (proficient)