Rahul Arora

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EDUCATION

Rice University — Houston, TX
BS Computer Science, BA Mathematics, Minor: Financial Computation and Modeling — *Aug. 2023 – May 2027*
GPA: **3.95/4.00**, *President's Honor Roll*

Newark Academy — Livingston, NJ
IB Diploma Recipient, National Merit Scholar, Cum Laude Society, ACT: 36 — *Sep. 2019 – May 2023*

EXPERIENCE

Software Dev Intern — Jun. 2025 – Present
Graham Capital Management — *Rowayton, CT*
- Will be enhancing API layer for data delivery by creating a consolidated centralized consumption layer

Undergraduate Research Assistant — Feb. 2025 – Present
Rice University — *Houston, TX*
- Advancing augmented distribution testing by scaling predictive reference models to enhance statistical inference

Software Engineering Intern — Jun. 2024 – Aug. 2024
PROS — *Houston, TX*
- Improved efficiency of flight data processing pipeline by 35% by developing an API to accurately parse data
- Added REST API to query data from Cassandra database with Dropwizard framework in JDK 21
- Enhanced security by implementing a credential management system for REST API calls in an Electron app

Student Coordinator – Data Center — Aug. 2023 – Present
Rice University — *Houston, TX*
- Organized campus-wide Geographic Information System (GIS) courses, mentoring 50+ students on developing applications and analyzing datasets using ArcGIS Pro, and overseeing independent GIS research
- Performed regression analysis on US Gov. census tract datasets using ArcGIS Pro to determine Texas's energy generation sources and the ability to provide to electricity consumers

PROJECTS

Custom Dynamic Memory Allocator | *C* — Mar. 2025 – Apr. 2025
- Developed in C; implemented custom malloc, free, and realloc with segregated free lists
- Built heap consistency checker to optimize throughput and space utilization, achieving a performance of $\geq 97\%$

Sports Attendance Tracker | *JS, HTML, PHP, SQL* — Sep. 2021 – May. 2023
- Developed a full-stack web app for school athletics dep. to analyze event attendance, tracked IDs with QR codes
- Increased student attendance by 28% through website engagement by department, led to school-wide changes

EXTRACURRICULAR/LEADERSHIP ACTIVITIES

Rice Math Problem Solving Group — Aug. 2024 – Present
- Prepare and solve problems for the William Lowell Putnam Math Competition

Rice Quant Trading Club — Aug. 2024 – Present

CoFES Research Paper Reading Group — Aug. 2023 – Present
- Center for Computational Finance & Economic Systems group to discuss topics in quantitative research

Rice Club Squash – President & Club Team Founder — Aug. 2023 – Present
- Compete nationally, organize practices, helped raise $> \$50,000$ for Houston Mission Success (local nonprofit)

TECHNICAL SKILLS

Languages: Java, Python, C/C#, R, Haskell, SQL (Postgres), JavaScript, TypeScript, HTML/CSS, Swift
Frameworks: React, Node.js, .NET, JUnit, sklearn
Developer Tools: Git, Docker, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Libraries: pandas, NumPy, Matplotlib
Other: Bloomberg Terminal, Excel, Git/Github, Agile/Scrum, OOP (Object-Oriented Programming), Data Visualization, Data Structures & Algorithms[*], Machine Learning, Linear Algebra[*]

(* denotes Teaching Assistant)