

# AARUSHI SINGH

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## EDUCATION

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- Expected 12/25 **NEW YORK UNIVERSITY** New York, NY  
**The Courant Institute of Mathematical Sciences**  
**M.S. in Mathematics in Finance**
- **Expected Coursework:** object-oriented programming (Java), penalized regression, decision trees, linear regression, Fama-French, Black-Scholes, stochastic processes, Hull-White model
- 08/20 - 12/23 **PURDUE UNIVERSITY** West Lafayette, IN  
**B.S. in Computer Science**
- **Coursework:** operating systems (x86 Assembly, C), computer architecture (x86 Assembly, C), data structures and algorithms (Java), systems programming (C/C++, Bash Script), data mining and machine learning (Python), marketing management for new ventures
  - **Honors:** FactSet Research Systems Scholarship 2021

## EXPERIENCE

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- 10/23 - 08/24 **EXCELLENT REALM** Cupertino, CA  
**Software Engineer (Python, LangChain, OpenAI, React)**
- Developed AI chatbot to teach computer science fundamentals for this tutoring startup
  - Integrated progress-tracking system into chatbot with React and Azure to monitor client performance and provide personalized learning experiences
  - Formulated dynamic pricing strategy using NumPy and optimization algorithms to model scenarios, ensuring profitability while maximizing client acquisition and retention
  - Acquired 80 student clients in first month by implementing data-driven marketing strategy with Pandas for targeted school advertising in local area
- 06/22 - 08/22 **PUBLICIS SAPIENT** Boston, MA  
**Software Engineer Intern (Python, React Native, PostgreSQL, Spring Boot)**
- Built database to manage user transactions for stock trading app, ensuring data integrity and fast query performance for high-frequency data
  - Facilitated front-end and back-end integration to create responsive and user-friendly interface
  - Conducted market analysis of popular trading platforms using Python to track features and performance, providing insights for strategic positioning in competitive market
- 08/21 - 05/22 **THE DATA MINE** West Lafayette, IN  
**Data Science Researcher (R, SQL)**
- Collaborated with CliftonLarsonAllen financial services firm to determine dynamic pricing model that maximizes profitability for their services while staying competitive
  - Analyzed CliftonLarsonAllen's employee data (e.g., billable hours, region) to create model
  - Trained in R to manipulate and aggregate dataframes, providing detailed analysis of pricing structures and identifying improvements through predictive insights on workforce utilization

## PROJECT

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- 01/23 - 05/23 **PURDUE UNIVERSITY** West Lafayette, IN  
**AppTrack (Django, SQL, OpenAI)**
- Engineered web platform to analyze Gmail inboxes for job updates, automatically notifying candidates of required actions or progress in recruitment process
  - Automated extraction from inboxes using web scraping AI and Google API to update information on web application in real-time through Django for seamless tracking

## COMPUTATIONAL SKILLS / OTHER

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**Programming Languages:** Python, Java, C/C++, R, x86 Assembly, HTML, CSS, Bash Script, Javascript, SQL, LaTeX  
**Technologies:** React, Android Studio, Linux, PostgreSQL, Django, Figma, Excel, OpenAI, Node, Spring Boot  
**Certifications:** Certificate in Entrepreneurship and Innovation, Full Stack Fundamentals upGrad Knowledgehut-MEA  
**Activities:** Delta Kappa Delta, Recruitment Co-Leader; Association of South Asians at Purdue: Treasurer and Media Coordinator; Rally Line, Alumni Fundraising Student Cold Caller (Top 10 of 200 Students)