Ishaan D. **Rao**

Student · University of Pennsylvania

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Education

University of Pennsylvania — Philadelphia, PA

School of Engineering and Applied Sciences — *Aug. 2017 - May 2021*

- **Major:** Computer Science
- **Relevant Coursework:** Applied Machine Learning, Automata and Complexity, Data Structures and Algorithms, Introduction to Computer Architecture, Linear Algebra and Differential Equations, Mathematical Foundations of Computer Science

The Wharton School

- **Concentration:** Business Analytics
- **Relevant Coursework:** Corporate Finance, Financial Accounting, Managerial Economics, Real Estate Investments

- **GPA:** 3.73/4.0
- **Honors:** Dean's List 2018-2019, 1st Place Wharton Undegrad Pitch Competition, 2nd Place Mastercard Puzzle Tournament

North Carolina School of Science and Mathematics — Durham, NC

High School — *Aug. 2015 - May 2017*

- **Relevant Coursework:** Computational Physics, Game Theory and Combinatorics, Graph Theory, Group Theory, Mathematical Modeling, Research in Computational Science
- Co-authored R Programming Manual: *Case Studies Using the R Programming Language*
- **GPA:** 4.0/4.0

Experience

SAS Institute — Cary, NC

Software Engineering Intern — *May. 2019 - Present*

- Implemented multinomial support for the logistic regression model on the Visual Analytics platform
- Added a confusion matrix visualization for the logistic regression model allowing users to understand the sensitivity and specificity of their models
- Resolved defects on the Visual Analytics platform relating to the decision tree, forecasting, and logistic regression models

University of Pennsylvania — Philadelphia, PA

CIS 121 Teaching Assistant — *Aug. 2018 - Present*

- TA for CIS 121: Data Structures and Algorithms which covers topics such as trees, graphs, heaps, sorting, searching, etc.
- Teach recitation once a week to review material from lecture
- Hold office hours multiple times a week to help students with concepts and problem sets

Genesys Inc. — Durham, NC

Software Engineering Intern — *May. 2018 - Aug. 2018*

- Designed, developed, and implemented a new workflow for user creation in the PureCloud API to eliminate rate-limiting
- Added ability to translate messages to any language in PureCloud Collaborative chat allowing for global agent interactions
- Implemented automated tests into PureCloud's cloud-based, scalable architecture, including services such as Directory, User, Authorization, Upload/Download, and Voicemail
- Worked with PureCloud's Public REST APIs with CI/CD, using dev tools such as AWS (S3 & SQS), Jenkins, Bitbucket, NewRelic and Sumologic

NBA Hackathon: Business Analytics Track — New York, NY

Participant — *Sep. 2017*

- Invited to compete alongside a select group of students from universities across the United States
- Developed an algorithm to predict the entertainment value of a given NBA game using data from previous NBA games
- Trained model using ticket sale data, TV viewership data, and in-game statistics
- Utilized Python's scipy, pandas, numpy, and matplotlib libraries for data manipulation, data visualization, and model training

Duke University — Durham, NC

Research Intern — *Jun. 2016 - Sep. 2016*

- Conducted computational environmental research to address energy inefficiencies with battery-storage technology
- Developed a cost optimization model for large scale energy storage devices using R and the Shiny package
- Conducted analysis using Mathematica to determine financial viability of battery-storage technology
- Submitted research paper to Siemens and Regeneron research competitions

Skills

Languages: C • CSS • HTML • Java • JavaScript • Mathematica • OCaml • PHP • Python • R • TypeScript

Libraries & Frameworks: Boostrap • jQuery