Ishaan D. **Rao**

Student · University of Pennsylvania

Philadelphia, PA

(+1) 919-867-1207 | ishaanr@seas.upenn.edu | ishaan-rao | ishaanr21

Education

University of Pennsylvania — *Philadelphia, PA*

B.S.E. in Computer Science — *Aug. 2017 - Present*

- Data Structures and Algorithms, Mathematical Foundations in Computer Science, Calculus III, Engineering Probability, Principles of Physics I: Mechanics and Wave Motion, Principles of Physics II: Electromagnetism and Radiation, Managerial Economics, Programming Languages and Techniques I

North Carolina School of Science and Mathematics — *Durham, NC*

High School — *Aug. 2015 - May 2017*

- Research in Computational Science, AP Chemistry, Computational Physics, Group Theory, Graph Theory, Game Theory and Combinatorics, Mathematical Modeling, Python, Java
- Co-authored R Programming Manual: *Case Studies Using the R Programming Language*
- GPA: 5.663/5.0 (weighted)

Experience

Genesys — *Durham, NC*

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

- Design, build out, and execute automated testing to complement Genesys' scalable, cloud-based web architecture
- Implement automated testing throughout Genesys' products and software such as PureCloud

The Daily Pennsylvanian — *Philadelphia, PA*

Web Developer — *Jan. 2018 - Present*

- Develop and maintain the website of the Daily Pennsylvanian (thedp.com) and engage in data journalism
- Produce independent project pages and internal tools using Python, JavaScript, and HTML/CSS for use by other departments

UPenn Access Engineering — *Philadelphia, PA*

Instructor, Webmaster — *Sep. 2017 - Present*

- Teach computer science, mechanical engineering, bioengineering, and electrical engineering workshops to inner city high schoolers in Philadelphia
- Maintain and update the website to reflect lesson plans and other logistical information
- Develop engineering tutorials and lesson plans targeted toward high school students

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

Shodor Education Foundation — *Durham, NC*

Intern — *Oct. 2013 - Aug. 2017*

- Developed curricula and taught programming concepts, web design, forensics, and modeling workshops
- Used PHP, MySQL, and Google Calendar API to make updates and fix bugs on the HPCU website
- Created online JavaScript tutorial for use by educators and students in apprenticeship program

Duke University — *Durham, NC*

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

- Conducted computational environmental engineering 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

- Proficient in Java, Python, HTML/CSS, R, JavaScript, PHP, OCaml, and Mathematica
- Skilled at modeling and simulation programs such as Vensim, AgentSheets, NetLogo, and Excel