# **Anant Shyam**

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#### EDUCATION

#### Cornell University

Ithaca, NY

Bachelor of Science in Computer Science, Minor in Operations Research

Aug '21 - May '25

- Dean's Merit List Scholar (GPA: 3.82)
- Relevant Coursework: Analysis of Algorithms, Machine Learning, Functional Programming, Linear Algebra, Multivariable Calculus, Probability, Discrete Mathematics, Data Structures

#### TEACHING EXPERIENCE

# Cornell University Department of Computer Science

Ithaca, NY

Teaching Assistant for Data Structures

Jan '23 - Present

• Held office hours for about 700 students to enhance their understanding of data structures, algorithms, and Java concepts. Mentored and guided students through their assignments and exam preparation.

Teaching Assistant for Python Programming

Aug '22 - Dec '22

• Held office hours for about 800 students to enhance their Python and software development concepts. Mentored and guided students through their assignments and exam preparation.

#### RESEARCH EXPERIENCE

### Cornell University Computer Systems Laboratory

Ithaca, NY

Machine Learning Researcher

Aug '22 - Present

- Working under Professor Zhiru Zhang, an ECE Professor at Cornell University, on a research project. This project aims to deploy and optimize binary neural networks on an Associative Processing Unit (APU).
- Used the GVML library to develop a ReLu layer for the binary neural network. This layer aims to process and filter large matrices of information. Currently developing an element-wise add layer for the binary neural network.

#### White Plains Hospital

White Plains, NY

Data Analytics Researcher

- Jun '19 May '21
- Researched under the guidance of Dr. Farrukh Jafri, an Experienced Medical Doctor and Simulation Educator.
- Applied R and linear regression principles to statistically analyze the data of two medical research projects. Wrote formal research papers for both projects.

#### Industry Experience

Interactive Brokers Greenwich, CT

Software Engineer Intern

Jun '22 - Aug '22

- Enhanced the tool that the Risk Team used to approve or reject margin changes for equities to reduce room for error and time required to review.
- Retrieved margin-rates related data (specifically the margin rule input) from numerous relational databases using MySQL. Stored the margin rule input using Perl, and properly displayed the data for the user using HTML.
- Developed a stand-alone Python script, which interprets margin-rates related data from a CSV file and updates the appropriate relational database with this information.

#### AWARDS AND RECOGNITIONS

- 2nd Best Overall App Award Built an app that allows users to find, search and host parties near you. Won second place in a Hack Challenge at Cornell University.
- Columbia University Science Honors Program Scholar Accepted by Columbia University to participate in their high school science honors program (approx. 10 % acceptance rate).
- Innovations in Biological Sciences Research Award Won an award for for displaying ingenuity in the fields of technology and medicine through my COVID-19 high school research project.
- Salutatorian Received this award for being ranked 2nd in my high school (Percentage: 100.09%)

#### Skills and Activities

- Programming Languages: Python, Java, OCaml, Swift, PHP, Perl, C, SQL, HTML, CSS, R, Bash, LaTeX
- Hobbies: Playing Badminton, Squash, Running