Anant Shyam

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EDUCATION

Cornell University — Ithaca, NY

Bachelor of Science in Computer Science, Minor in Mathematics — *Aug '21 – May '25*

- Dean's Merit List Scholar (GPA: 3.77)
- Relevant Coursework: Analysis of Algorithms, Machine Learning, Large Scale Machine Learning Systems, Natural Language Processing, Reinforcement Learning, Operating Systems, Advanced Linear Algebra, Computer Systems Programming, Functional Programming, Object-Oriented Programming and Data Structures, iOS Development

PROFESSIONAL EXPERIENCES

Cleo — Rockford, IL

Software Engineer Intern — *Jun '23 – Aug '23*

- Developed a machine learning model using Keras, scikit-learn, TensorFlow, and NumPy which learns how to write code in a hypothetical object-oriented language similar to Cleo's language with accuracy of approximately 70%. Pitched my model to the Director of Product Development and explained its' potential to be expanded to learn how to program in Cleo's programming language.
- Trained multiple existing models to write code that handles complex data transformations, similar to those that Cleo supports. Pitched these trained models to the Product Development Team, and explained their potential to reduce the room for error and time needed for Cleo to handle data transformations.
- Implemented a feature on the Cleo Integration Cloud, the UI where all of Cleo's customers' jobs are displayed, which allows for direct navigation from a customer's jobs to another customer's jobs using TypeScript, Angular, and RxJS.

Cornell University Department of Computer Science — Ithaca, NY

Teaching Assistant — *Aug '22 – Present*

- Selected to serve as a Teaching Assistant for the following courses: Functional Programming, Object-Oriented Programming and Data Structures, and Python Programming.
- Hosted office hours for 400+ students to assist with assignments and exam preparation. Led weekly recitation sections for 30+ students to reinforce material taught in lecture. Serving as a Project Mentor for student-teams through a semester-long software development project; holding weekly meetings to discuss progress made and next steps.

Cornell University Computer Systems Laboratory — Ithaca, NY

Machine Learning Researcher — *Aug '22 – May '23*

- Researched under Professor Zhiru Zhang, an ECE Professor at Cornell University, on a project which aims to deploy and optimize binary neural networks on an Associative Processing Unit (APU).
- Implemented a ReLU layer for the binary neural network in C using the GVML library, resulting in efficient data movement between the host CPU and the APU. This layer transforms high-dimensional inputs according to a linear piecewise activation function. Worked on the elementwise-add layer, which adds high-dimensional inputs from multiple other layers element-by-element.

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 these margin changes.
- 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 customer on the UI using HTML, allowing the customer to make more informed decisions about the stocks that they want to purchase.
- Developed a Python script which interprets margin-rates related data including the type of stock, asset classes, and the registration date from a CSV file, and updates the appropriate relational database with this data. Incorporated an argument parser, allowing the user to pass in additional stock-related parameters to be put into the database from the command line.

TECHNICAL SKILLS

Languages: Python, Java, OCaml, C, C++, HTML, CSS, TypeScript
Libraries and Frameworks: PyTorch, Tensorflow, NumPy, scikit-learn, Keras, Flask, Angular, RxJS