Bonnie Akhavan

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1 Cora Way
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Education

Cornell University College of Engineering, *B.S. in Computer Science and Operations Research Engineering*
Expected Graduation: May 2022 **Cumulative GPA:** 4.1, Dean's list all semesters

Relevant Coursework

Statistics | Optimization | Machine Learning | Algorithms | Computer Vision | Stochastic Processes | Database Systems | Networks | Financial Engineering | Linear Algebra | Simulation Modeling and Analysis

Relevant Experience

Research Assistant, Cornell University **September 2021-Present**

- Working as part of the Cornell COVID-19 Modelling Team under Professor Peter Frazier to study, simulate, and forecast the progression of COVID-19 across the Cornell University campus in Ithaca, NY
- Created live visualizations in Tableau for the Cornell administration to monitor infections on campus
- Researching transmission rates based on symptomatic status using regression analysis for the NYC Health Department

Various Teaching Assistant Positions, Cornell University **January 2020 - Present**

- Held office hours, graded material, and acted as course liaison for students in Engineering Statistics II (current position), Machine Learning, and Object-Oriented Programming and Data Structures (Java)
- Taught Java and object-oriented programming concepts in weekly recitation sessions of approx. 25 students

Intelligent Systems Subteam Member, Cornell Data Science **March 2021 - Present**

- Engaged in team reading groups and paper writing sessions on current machine learning research
- Trained a reinforcement learning agent to play Texas Hold'em against human players

Quantitative Strategy Summer Analyst, Goldman Sachs **June 2021-August 2021**

- Rotated between the Synthetic Products Strats Desk and Commodities Strats Desk
- Constructed a new averaging swap tradable using forward starting executions
- Designed architecture for a new auto-quoting system to price credit valuation adjustments on oil derivatives

Software Development Intern, Bandwidth **May 2020 - August 2020**

- Worked on the design and performance testing of a new international least cost routing engine concept
- Deployed applications using DevOps tools such as OpenShift (Kubernetes), Jenkins, Docker, and Maven
- Presented a SQL-based cost routing system with a 2.3 millisecond average response time

Machine Learning/Engineering Intern, Vonage **May 2019 - July 2019**

- Led efforts using NLP software to train models predicting customer service complaints with 95% accuracy
- Wrote cleaning programs to extract information from dense and diverse customer email data

Additional Experience

Philanthropy Chair, Tau Beta Pi **April 2021-Present**

- Organize service events for the NY Delta Chapter of Tau Beta Pi, including resume review workshops and tutoring sessions with local students
- Inducted as a member in 2020, along with the top 12.5% of students in the Cornell Engineering Class of 2022

Corporate Relations Co-Director, Women in Computing at Cornell **December 2019-January 2021**

- Responsible for all corporate events and sponsorships for Cornell's chapter of the ACM-W
- Corresponded with over 60 companies such as Google, Facebook, and Goldman Sachs to plan recruitment events
- Raised over $14,000 in scholarship funds during my tenure

Calculus Course Assistant and AEW Lecturer, Cornell University **August 2019 - December 2019**

- Lecture to classes of 15-20 students about past course material
- Prepare class materials and exam review for students in engineering calculus

Selected Additional Projects **January 2019 - Present**

- Designed a convolutional neural network using PyTorch to classify 16 different animals through images
- Created models and forecasts to assess car accident risk in various conditions and locations across the US

Honors and Awards

WICC Grace Hopper Scholarship (2020, 2021), SAIC Scholarship (2021), Tau Beta Pi Scholarship (2021), Merrill Presidential Scholar (2022)

Skills

Computing Skills: Python, Java, MATLAB, C, Unix/Linux, SQL, Visual Basic (VBA), Tableau, LaTeX, OpenShift, GitHub, Simio, Assembly
Languages: English (native), German (fluent), Spanish (basic)