Frank Zhou

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Education

Cornell University Ithaca, NY

Bachelor of Arts in Computer Science and Math, ***GPA: 3.85/4.00*** *May 2025*

- Related Courses: Analysis of Algorithms, Advanced Linear Algebra, Artificial Intelligence, Discrete Structures, Functional Programming, Honors Analysis, Machine Learning, Object Oriented Programming and Data Structures

Experience

Machine Learning Subteam Lead Sep. 2022 – Present

Cornell University Sustainable Design *Ithaca, NY*

- Lead a team of 15 to work on incorporating high-efficiency sensors, various tracking technologies, and machine learning to automate HVAC in classrooms at Cornell
- Designed a neural network that sets the optimal temperature for rooms according to calendar entries of users
- Estimated to save over 14,000 kWh and $1,000 annually for LEED Platinum Certified Building such as Upson Hall

Undergraduate Teaching Assistant Aug. 2022 – Present

Cornell University: CS1110 (Intro. CS), CS2110 (OOP and Data structures) *Ithaca, NY*

- Facilitated students in learning and applying data structures and algorithms using Java
- Design and grade assignments, quizzes, and exams that test students' understanding and implementation
- Lead weekly sessions for 30+ students to solidify understanding of material

Frontend Engineer Dec. 2021 – May 2022

Cornell Finance Club *Ithaca, NY*

- Built and deployed a dynamic website using HTML, CSS, and JavaScript with 2,000+ visits
- Integrated Firebase to store club members' information and used Firebase Auth to authenticate club members

Data Analyst Intern June 2021 – Aug. 2021

DHVC Venture Capital *Remote*

- Performed data cleansing and transformation using SQL, and Python to generate insight from client-provided data
- Presented investments and technical ideas to stakeholders and industry executives

Projects

Minesweeper Solver | *Python* Jan. - June 2023

- Developed a Minesweeper solver by integrating deep learning techniques with probabilistic methodologies like CSP
- Optimized the solver to achieve a 40% success rate and solve the game in an average time of 0.06 seconds

Meat By Receipt | *Swift, Python, Google Cloud, Figma* Oct. 2022

- Won Best Use of Google Cloud out of 204 Competitors for a full stack IOS app that help reduce meat consumption
- Track meat consumption by simply taking a picture of shopping receipts using Google OCR and Google VM
- Created app branding, high-fidelity designs, and prototype in Figma in 36 hours

Oasis Cube | *OCaml* Sep. 2022 – Dec. 2022

- Collaborated in a group of 3 using agile programming methods to iteratively develop and deliver a fully functional virtual Rubik's Cube simulator using OCaml Graphics
- Enables users to customize and visualize Rubik's Cubes (2x2 and 3x3 puzzles) in different dimensions and modes

Project Euler | *Python* June 2022-current

- Solved and optimized 50+ computational problems with problems having under 5000 accepted solutions
- Used dynamic programming, graph theory, linear algebra, combinatorics / probability theory, linear algebra etc

Technical Skills

Languages: Python, Java, OCaml, SQL (PostgreSQL), Bash, JavaScript, HTML/CSS
Frameworks: React, Node.js, JUnit, Bootstrap
Developer Tools: Git, VS Code, Visual Studio, IntelliJ, Eclipse, ChatGPT
Libraries: pandas, NumPy