Elizabeth Chen

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EDUCATION

Cornell University-- Bachelor of Science **Ithaca, NY**

College of Engineering. Major: Computer Science; Minor: Applied Economics *August 2023- May 2027*

GPA: 3.761

Relevant Coursework: Intro to ML, Algorithms, Data Structures (Java, OCaml), Computer Systems and Organization, Discrete Math, Engineering Probability and Statistics, Probability Models and Inference, Linear Algebra, Econometrics, Price Analysis,

Skills: Github, Gemini, Tensorflow, Java, Python, C++, OCaml. Typescript, HTML, Objective-C, Protobuf, Next.js, FullStack, R, MatLab, Stata, Jira, BitBucket, Linux, ROS, React, Javascript, C

PROFESSIONAL EXPERIENCE

LDI Replication Lab **Ithaca, NY**

American Economic Association Student Research Assistant *August 2025-Present*

- Evaluated manuscripts and datasets from research labs across the U.S. to ensure data replicability, leveraging Stata, MATLAB, R, and Python for statistical and computational validation

Google—YouTube **San Bruno, CA**

Software Engineering Intern *May 2025-August 2025*

- Developed a lyrics translation feature for YouTube Music's in-app lyrics for Android and iOS that is used by tens of millions of listeners worldwide; was able to launch feature to public
- Resolved a critical yearlong bug by implementing and launching a lyrics text direction fix that enhanced the accessibility and readability of lyrics across different song and app languages, improving the experience for a global user base
- Enhanced accessibility and usage by modernizing core components of the YouTube Music app by addressing client feedback and elevating product quality at scale
- Engineered a complex transition animation using a low-level internal language with minimal documentation, discovered and fixed a critical animation framework bug, improving reliability for all developers, receiving positive feedback from senior engineers
- Collaborated with full-time engineers to integrate a critical pipeline and went above and beyond by proactively implementing additional high-impact tasks that were not assigned to me, helping accelerate overall project delivery

Google—Search **Mountain View, CA**

Software Engineering Intern *May 2024-August 2024*

- Implemented a full-stack feature for an internal experiment launch tool by extracting data from the internal tool's metamodels using Java and a Google internal configuration language and rendering detailed tables using Typescript and HTML
- Created a standardized file format using an internal configuration language to extract shared attributes from a collection of attribute files, reducing manual effort of modifying files and improving efficiency
- Successfully finished the entire development lifecycle, encompassing the creation of design documentation, implementation, and final launch

PROJECTS

CalHacks AI –Tissue.AI *June 2025*

- Developed a full-stack application using Next.js, React, Tailwind, and FastAPI that helps developers resolve GitHub issues by analyzing repo structure and generating actionable insights using Letta's MemGPT multi-agent system
- Engineered robust backend workflows with Pydantic schemas, GitHub API integration, and asynchronous agent orchestration and integrated an interactive code viewer using Monaco Editor to streamline developer experience

Cornell University Autonomous Drone (CUAD) Project Team *October 2023 - Present*

- Developed a custom YOLO model using Tensorflow and ONNX to analyze images and detect mission-critical objects for autonomous drone missions, collaborating with other subteams to ensure accurate system integration
- Designed and built a ROS-based API in a Linux environment to automate and run Gazebo simulations of drone movement, takeoff, and landing functionalities, enabling efficient testing and iteration development

Cornell ORIE Undergraduate Research *September 2023 – January 2024*

- Analyzed multi-year student data under ORIE faculty to identify academic trends across courses by refining research methodology by developing a Python script using Beautiful Soup to map and visualize course prerequisites, enabling researchers to perform more efficient curriculum analysis

LEADERSHIP EXPERIENCE

CS 2110: Data Structures and Object-Oriented Programming (Java) **Ithaca, NY**

Teaching Assistant *January 2025 – Present*

- Selected from a competitive pool of applicants to support 500+ of students by leading weekly discussions and office hours and contributing to course development and improving content quality and diversity
- Applied advanced Java and data structures knowledge to effectively teach and mentor students, simplifying complex algorithms through clear explanations and examples

Society of Women Engineers (SWE) **Ithaca, NY**

Prospective Students Committee Director *September 2023 – Present*

- Increased engagement among 700+ prospective engineering students by organizing and supporting peer connection initiatives, resulting in stronger community ties and improved perception of the program and the engineering community