

# Sophia Wang

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## EDUCATION

### Cornell University

Ithaca, NY

*Bachelor of Science in Computer Science*

*Aug. 2022 – May 2026*

GPA: 3.76/4.0, College of Engineering - Dean's List

**Coursework:** Object-Oriented Programming & Data Structures, Functional Programming, Data Science, Discrete Structures, Design & Programming for the Web, Intro to iOS, Intro to Backend, Probability Models & Inference

**Activities:** Social Officer (Association of CS Undergrads), Elem. Outreach Committee (Society of Women Engineers)

## EXPERIENCE

### Imaging Systems Engineer

Oct. 2022 – Present

*Cornell University Unmanned Air Systems*

*Ithaca, NY*

- Enhanced quality of a ground-server system responsible for receiving and managing aerial images by creating target selection dropdowns and hotkey target-to-sighting matching with React and Redux
- Developed REST APIs to send metrics and gimbal commands with a React frontend & Java Spring Boot backend
- Implemented an image data/JSON deserializer and processor in Rust and a target classification web app that sends and receives data to/from a Spring Boot backend for onboarding

### Student Training in Engineering Program (STEP) Intern

May 2023 – Aug. 2023

*Google*

*San Francisco, CA*

- Created a backend Java gRPC action and a Protocol Buffer to send emails to ~500 users/month with their transit pass data when they are deleted, deactivated, or reactivated based on F1 database changes
- Led the design process by creating an in-depth design document and conducting a design review with senior Google engineers to weigh various methods of triggering the action and querying data
- Conducted JUnit testing and led bug bashes with mobile test devices alongside detailed test/launch documents
- Collaborated and corresponded with cross-functional teams (UX, PM, legal, marketing) for successful user launch

### Computer Science Summer Institute (CSSI)

July 2022 – Aug. 2022

*Google*

*Online*

- Participated in a 4-week intensive summer program for high-achieving students with a project-based HTML/CSS and JS curriculum taught by Google engineers, and configured 3 partner coding projects
- Built a live Monkeypox case tracker site with a partner that fetches data from an API and displays worldwide case numbers (total and per country), an interactive map, bar/pie charts and general Monkeypox information
- Delivered a collaborative final project presentation with a live demonstration to Google employees

## PROJECTS

### Spoken Digits Classifier | *Python, NumPy, Matplotlib, Pandas, scikit-learn, Scipy.io*

Dec. 2023

- Trained an SVM classifier on and used Fourier transform to de-noise 40k WAV files, each with either Gaussian white noise or one high-frequency noise randomly added, that recognizes which two digits are being spoken in each file

### Sneep | *Python, Flask, SQLAlchemy, Docker, Nltk, Google Cloud*

Dec. 2023

- Deployed an API with Docker & Google Cloud that stores sleep & dream data in a database with SQLAlchemy and that has HTTP endpoints using Flask (eg: create a new sleep, get most common dream words using SLTK, etc.)

### UnOCaml | *OCaml*

Dec. 2023

- Created a terminal-based simulator in OCaml of the card game UNO (108 total cards) that supports multiplayer and multi-round gameplay with human or smart robot opponents using functional programming principles
- Utilized agile software practices with test-driven development, feature sprints, and git for version control

### CUEat (with Intro to iOS class) | *Swift*

April 2023

- Led the creation of a recipe app frontend with SwiftUI that uses UICollectionViews and push controllers
- Spearheaded features for displaying recipe info & images, and filtering and adding new recipes to a database

## TECHNICAL SKILLS

**Languages:** Java, Python, Javascript, HTML/CSS, SQL, OCaml, Swift

**Frameworks/Libraries:** React, Redux, Flask, SQLAlchemy, gRPC, JUnit, JQuery, NumPy, Matplotlib, scikit-learn

**Tools:** Git, Docker, VSCode, IntelliJ, Cloud Spanner, Bazel, Google Cloud