

www.kylelai.me | 718.309.6432 KL655@cornell.edu | github.com/kyle-lai-01 | linkedin.com/in/klai01

# **EDUCATION**

### **CORNELL UNIVERSITY**

**BS IN COMPUTER SCIENCE** May 2023 | Ithaca, NY College of Engineering Dean's List

Cum. GPA: 3.76 / 4.0

### **TOWNSEND HARRISHS**

NYS Regents Diploma. Honors June 2019 | Queens, NY Cum. GPA: 98.55 / 100

# SKILLS

### **TECHNICAL**

#### Proficient:

Java • OCaml • React/Redux JavaScript ES6 • HTML5 • CSS3 Git • Linux • Microsoft Office Suite Familiar:

Python • Flask • Bootstrap

Teamwork • Communication Leadership • Research

# COURSEWORK

CS 2110 OOP and Data Structures CS 2850 Networks CS 3110 Functional Programming CS 4820 Analysis of Algorithms MATH 1920 Multivariable Calculus MATH 2940 Linear Algebra ECE 2300 Digital Logic and Computer Organization

# ADDITIONAL INFO

#### Languages

Native in English Fluent in Cantonese Speaking

Skiing Viticulture Guitar Aviation

Calculus

Interests

# **PROJECTS**

### SONGS AND MOVIES RECOMMENDER | REACT, FLASK, ES6 Jul 2020 - Aug 2020 | New York, NY

- Built a movie and song recommendation web app using **React** with hooks and bootstrap and **Flask** to create an API.
- Integrated **Spotify API** calls to authenticate users and load playlists. search songs, save playlists, and TMDB API to search and select movies.
- Developed song recommendation and movie recommendation algorithms that are handled by Flask API calls from the front end.

### BUDGET TRACKER | REACT, FLASK, ES6 May 2020 - Jul 2020 | New York, NY

- Built a budget and subscriptions tracking web app with a **React** front end and a Flask API.
- Implemented **React** hooks to store user inputs of monthly expenses in state, with a dynamic dashboard to display totals.
- Created Flask API to handle user authentication and authorization with JWT, with a SQLite database to save and load user's entries.

## OMASKL INTERPRETER, EVALUATOR, TRANSLATOR | OCAML Apr 2020 - May 2020 | Ithaca, NY

- Built an interpreter, translator, and evaluator to read a newly created language in input .txt files and output the translated **OCaml** code.
- Developed a new language "OMaskl" with OOP and functional programming features with a parser and lexer using .mly and .mli files.

### **SERVO DIAGRAM PAGE** | REACT, ES6, CSS Oct 2019 - Jan 2020 | Ithaca, NY

- Built a servo diagram page for the CUAir ground station in **React** to allow for a graphical visualization of servo positions to aid in changing parameters for tuning.
- Created containers corresponding to the position and orientation of servos with input boxes that directly send parameters to the plane.

# **EXPERIENCE**

### **CORNELL UNMANNED AIR SYSTEMS** | AUTOPILOT SUBTEAM Oct 2019 - Present | Ithaca, NY

- Joined the autopilot software subteam, which maintains software for autonomous flight planning and obstacle avoidance algorithms.
- Attended weekly full team and subteam meetings and work sessions to discuss updates and further develop the ground station, which connects to the plane during test flights.

# **SCIENCE OLYMPIAD AT CORNELL** | TREASURER

Sep 2019 - Present | Ithaca, NY

- Forecasted expenses to allocate a \$2000 budget to run tournaments for 500+ high school students by coordinating with Student Activities Funding Commission.
- Raised over \$2500 in funds for the school year by reviewing sponsor letters and contacting sponsors.