# Miranda Luo

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#### Education

Cornell University Ithaca, NY

Bachelor of Arts in Computer Science and Biological Sciences, GPA - 3.85

expected May 2024

• **Relevant Coursework**: OOP & Data Structures, Discrete Math, Functional Programming, Backend, Web Development, Algorithms, Data Driven Web Apps, Computer Systems and Architecture, Computer Vision

#### Experience

Meta (Instagram) Menlo Park, CA

Software Engineer Intern

May 2022 - Present

- Developing clients and tests for Django code to realize IG Basic Ads, compliant with first party data usage
- Spearheading new Thrift migration in feed ads platform backend infra for improved privacy and efficiency

Cornell University Ithaca, NY

Cornell Design & Tech Initiative - Developer/Technical Product Manager

September 2021 – Present

- Adding data export & OAuth Firebase and Express API authentication for Zing-LSC, a tool for study partner pairing
- Implementing match UI functionality on Zing, a tool for professors to intelligently form groups of students
- Upgrading React project component library to take advantage of MUI v5 system styling and theme capabilities

# Cornell Bowers CIS Teaching Assistant

August 2021 - Present

- Fall 2022 Present: Computer System Organization and Programming TA
- Fall 2021 Spring 2022: Data Structures and Functional Programming Consultant (400+ students in class)

Workstream San Francisco, CA

## Full-Stack Software Engineer Intern

June 2021 – August 2021

- Developed state tax withholding form UI & HelloSign signing onboarding module for over 100 businesses
- Designed and wrote APIs for dynamic search of ADP workers and extra data submission through form to ADP
- Resolved bugs and high priority tickets as reported by customer service, wrote tests for backend

## **Kadmon Corporation**

New York, NY

## Molecular Signaling Summer Intern

June 2019 – July 2020

- Predicted positive protein crystallization conditions with 90% accuracy of prediction over last generation with reinforcement learning algorithms
- Researched and presented basic machine learning findings for use in drug development to the department

## **Projects**

#### **EVTrain** | *Vue, TypeScript -* evtrain.vercel.app

Developed an app to keep track of EVs values, a useful technique for Pokemon competitive battling. Implemented Pinia stores, RESTful API calls and caching for Pokemon data lookup, and intuitive form data entry for EV values.

# Cornell Simulator (Game) | OCaml - github.com/mluo24/CornellSimulator

Created a 2-D tile-based single-player game simulating the life of a student. Implemented and optimized a tileset engine to easily create game maps with separate interactive layers. Integrated a mission & leveling-up system.

## Sharefolio | Django, Python, React, TypeScript - github.com/mluo24/sharefolio

Developed a platform to share and receive feedback for creative portfolios and chaptered fiction. Utilized RESTful APIs for story and chapter creation logic and Redux for authentication on frontend.

FRC Robotics Scouting Server | Laravel, PHP, MySQL - github.com/mluo24/pascack-pioneers-scouting-2020 Led a team of 3 to develop database for >80 users to upload robot scouting information. Designed an innovative form corresponding to game field. Implemented Google OAuth & guery system for searching data formatted for analysis.

Improving Semi-quantitative Colorimetric Test Kits | *Python* - github.com/mluo24/p-colorimetric-analysis Researched algorithm to determine concentration of phosphorus through spectrometer absorbance curves and smartphone pictures. Determined 90% fit of association of RGB values and solution absorbance to concentration.

# **Technical Skills & Awards**

Languages: Java, Python, JavaScript, TypeScript, OCaml, PHP, C++, SQL (Postgres, MySQL), C, Ruby, R Frameworks: Django, Flask, React, Vue, Node.js, Express, Ruby on Rails, Laravel, MUI, WordPress, D3 Libraries/Technologies: HTML/CSS, Git, Heroku, RESTful APIs, Firebase, pandas, NumPy, scikit-learn, thrift Awards: Aspirations in Computing Distinction (NCWIT), Computing Awards Honorable Mention (NJRSF), Dean's List