

# 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 backend tests for Django code to realize IG Basic Ads, compliant with first party data usage
- Spearheading new thrift-python migration in feed ads delivery platform infra for more efficient dev. experience
- Performing experiments on migrations observing ad impressions, revenue, and latency, improving said metrics

### 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: Incoming Computer System Organization and Programming TA (300+ students in class)
- 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 >100 businesses with React
- 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 with Ruby on Rails

### 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](https://evtrain.vercel.app)

Developed an app to keep track of EV 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](https://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](https://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](https://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 & query system for searching data formatted for analysis.

**Improving Semi-quantitative Colorimetric Test Kits | Python** - [github.com/mluo24/p-colorimetric-analysis](https://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, React, Vue, Node.js, Express, Flask, Ruby on Rails, Laravel, MUI, WordPress, D3

**Libraries/Technologies:** HTML/CSS, Tailwind, Git, RESTful APIs, OAuth, Firebase, pandas, NumPy, scikit-learn, thrift

**Awards:** Aspirations in Computing Distinction (NCWIT), Computing Awards Honorable Mention (NJRSF), Dean's List