

# Erin Song

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## EDUCATION

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### University of California, Berkeley

Expected Graduation: May 2021

B.A. Computer Science (Minors: Data Science, Human Rights)

**Relevant Coursework:** Algorithms, Artificial Intelligence, Operating Systems, Security, Databases, Data Structures, Data Science, Discrete Math, Probability Theory, Linear Algebra, UX Design, CS Pedagogy, Computational Music

## EXPERIENCE

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### Microsoft | Software Engineering Intern

May 2020 - Aug 2020

- Full-stack data visualization and AI tools for Lobe.ai, a no-code app that builds, trains, and visualizes deep-learning models.
- Developed web application that enables selecting deep-learning models to classify images from any camera device, displays prediction data on tracking dashboard, and sends custom notifications upon user-defined alert conditions using webhooks.
- Built iOS application allowing users to connect custom Lobe models to classify images on camera feed and photo library.
- Prototyped new feature that reports inaccurate model predictions and incorporates corrected values into training data.

### Cal Blueprint, Technology for Nonprofits | Project Lead, Full-Stack Software Developer

Aug 2018 - present

- Lead team of 5 developers and 1 designer to build full-stack applications for nonprofits (currently sourcing project partners).
- Develop pro-bono web and mobile applications using React and Ruby on Rails for nonprofits with student-led project teams.

### Cisco Systems | Software Engineering Intern

May 2019 - Aug 2019

- Developed web application dashboard (Angular.js, Java) visualizing internal client sales data for Customer Experience team.
- Wrote SQL queries on SAP HANA to analyze and visualize product renewal rate data, increasing sales efficiency by 4 times.

### Waterline Data | Software Engineering and UX Design Intern

Jun 2018 - Aug 2018

- Developed back-end framework generating custom error reports on enterprise data catalog UI and REST API (Java).
- Designed UI/UX prototypes (Sketch, Illustrator) and conducted user research reports for 5 new product features including data visualization dashboards, GDPR compliance, data manipulation, data accuracy reports, and data stewardship reports.

## PROJECTS

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### Unloop Classroom Portal (Ruby on Rails, React) | <https://github.com/calblueprint/unloop>

- Classroom portal for Unloop, a nonprofit preparing formerly incarcerated individuals for software development careers.
- Portal supports student-teacher communication, student profiles, dashboards for student profiles and progress, assignment of action items and legal documents, student casenotes, email notifications, and evaluation of benchmark assessments.

### Encrypted File Sharing System (Golang)

- Client program allowing users to load and store text files, edit file contents, securely share files to other users, and revoke file access privileges to shared users. Security enforced by public key encryption, UUIDs, HMACs, and digital signatures.

## COMMUNITY

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### Berkeley ANova | CS Instructor, Software and Curriculum Developer

- Mentor low-income middle and high school students in after-school CS program for Berkeley/Oakland school districts.
- Develop full-stack web application portal for instructors to centralize teaching tasks and reference curriculum content.

### UC Berkeley EECS Department | Undergraduate Student Instructor (CS 375: Teaching Techniques for CS)

- Teach weekly sections on CS pedagogy and education theory, with focus on training new EECS TAs and course staff.
- Develop curriculum guiding EECS staff on effective classroom facilitation, with emphasis on inclusive learning environments.

## SKILLS

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**Programming:** Python, Java, JavaScript, HTML/CSS, Ruby, C, Golang

**Frameworks/Tools:** React, Ruby on Rails, Flask, SQL, Node, Pandas, Postgres, Postman

**Design:** UI/UX, Sketch, Figma, Adobe CC (Photoshop, Illustrator, XD), User Research