

# Manuel Sabin, Ph.D.

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**About:** Ex-academic (expertise in Crypto & ML) turned software engineer who cares about building delightful tools for users and sound infrastructure for the world, centering accessibility, performance, security, & testability

**Skills:** C, CSS, Express.js, Figma, git, Go, HTML, Java, JavaScript, Linux, MATLAB, MySQL, Node.js, Postgres, Python, R, React.js, Sass, socket.io, Tailwind, TypeScript, Unix, WebAudio, WebMIDI, WebSocket

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## Career Highlights

**Impact:** Published first provably secure Proofs of Work. Contributed security-critical features to the Go standard library. Published in top Crypto, CS Theory, and ML conferences (ALT, CRYPTO, STOC) with ~375 citations.

**Leadership:** Organized workshops (~800 attendees) and served on panels and publishing committees at premiere ML venues (CVPR, FAccT\*, ICML, NeurIPS). Secured ~\$160K grant for Cryptography research.

**Communication:** Invited to present my work at 20+ venues (e.g. MIT, Stanford, UC Berkeley). Interviewed by media outlets (e.g. MIT Tech Review, Nature, & was a prominently featured expert in Simons Institute short film).

## Software Engineering Experience

### Lycalopex Fellowship, **Software Engineering Fellow**

Jun 2024 - Jul 2024

*Competitive paid fellowship to contribute to the official Go cryptography library*

- Created the new [cryptotest package](#) introducing reusable testing suites for Go's crypto library
- Merged a testing suite for each interface of Go's 5 core secret-key primitives in 5 weeks, spanning 60+ tests
- Caught a security bug in the CTR mode stream cipher that my tests uncovered and filed an [issue](#)

### Recurse Center, **Software Engineer in Residence**

Aug 2023 - Oct 2023

*A self-directed residency for software engineers (from juniors to CTOs) to collaborate and hone their craft*

- Built interactive [DSP web apps](#) with React and WebMIDI/WebSockets and [music software](#) with Python
- Initiated & led weekly workshops on dev tooling, web accessibility and WCAG 2.1 compliance (47% increase in Lighthouse scores across projects), and ran sprints for bite-sized web projects for a team of 7

### EduExplora, **Instructor and Program Creator**

May 2023 - Jul 2023

*UC Berkeley STEM outreach program for exceptional international high school students from Latin America*

- Created & taught an Introductory Python course on Object-Oriented design and physics simulations
- Coached 30 student developers on utilizing documentation, debugging, and pair programming

### Radboud and VUB Universities, **ML Consultant and Researcher**

May 2020 - Jan 2021

*Consulted on modern ML-based Legal Tech for competitive ERC-funded COHUBICOL Project*

- Surveyed existing Legal Tech and documented a vocabulary of technical concepts at the intersection of ML and Law, improving legibility and testability of these technologies for lawyers and legal philosophers
- Trained a team of lawyers on fundamental ML topics and mentored a CS PhD student

## Education

### UC Berkeley, **PhD Computer Science**

Aug 2020

### CSU Sacramento, **BA Math & CS; Minor in Statistics** (*Commencement Speaker*)

May 2014