Manuel Sabin, Ph.D.

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Career Highlights

Impact: Published first provably secure Proofs of Work. Contributed security-critical features to the Go standard library. Published influential research (∼375 citations) in top Cryptography, CS Theory, and ML conferences.

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).

Experience

Lycalopex Fellowship, Software Engineering Fellow Jun 2024 - Jul 2024

Competitive paid fellowship to contribute to the official Go cryptography library

- Created a reusable testing suite package for testing the interfaces of Go's core secret-key primitives
- Authored 5 merges in 5 weeks with 60+ tests, catching a security bug in the CTR mode stream cipher

Recurse Center, Software Engineer in Residence Aug 2023 - Oct 2023

Sabbatical at programmer's retreat centering collaboration, pair programming, and self-driven projects

- Built interactive DSP web apps with React and WebMIDI/WebSockets and music software with Python
- Upskilled colleagues by giving presentations on geometric intuitions for the Fourier transform, on the virtual DOM in React, and by running day-long sprints for bite-sized web projects
- Initiated and led lively weekly workshops on web accessibility, developer tooling, and music software

EduExplora, Instructor and Program Creator Jul 2022 - Aug 2022

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

- Created and 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. Improved legibility and testability of these technologies for lawyers and legal philosophers
- Trained a team of lawyers on fundamental CS 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

Skills

C, CSS/Sass, Go, HTML, Java, JavaScript/TypeScript/JSX, MATLAB/Octave, MySQL, Python, R, Scheme
Express.js, git, Linux, MySQL, Node.js, React.js, socket.io, Unix, WebAudio/WebMIDI/WebSocket APIs