

## TECHNICAL EXPERIENCE

Lycalopex Fellowship - Software Engineering Fellow

Jun-Jul 2024

- Contributed to **Go's** Standard Library: Created a reusable **testing** suite package for Go's core **crypto** library, and caught and filed a [security bug](#) that my tests uncovered
- Selected for competitive paid fellowship working with Go-maintainer Filippo Valsorda, gave and received code review, and merged my code with Go's CI as an **open source contributor**

Recurse Center - Software Developer in Residence

Aug-Oct 2023

- A self-directed retreat for coders where I:
  - Created my own projects (below), gave and received code review, and collaborated and pair-programmed daily with a vibrant community across many timezones
  - Organized workshops on developer tooling, Accessibility, and music software
- [rhythmomics](#) ([demo](#)): GUI visualizing the relationship between polyrhythms and harmony
  - Developed with **Python** using the pygame library; sound design from scratch
  - Designed, coded, and documented from scratch to be intuitive, pretty, and educational
- [waveformr](#) ([app](#)): GUI playground to shape soundwaves in time domain or frequency domain
  - Developed with **React/JavaScript/CSS** using the **WebAudio** and **WebMIDI** APIs
  - Draw arbitrary waveforms in the time or frequency domain to play with a MIDI keyboard!

Radboud and VUB Universities - ML Consultant and Researcher

May-Dec 2020

- Consulted on modern ML-based Legal Tech for Lawyers and Legal Philosophers
- Selected for competitive ERC-funded [COHUBICOL](#) Project, mentored CS PhD student, and co-created Legal vocabularies for core ML concepts/paradigms with the Law team

## PERSONAL PROJECTS

[FlowForm](#) ([app](#)): Multi-step user sign-up flow. Accessible, responsive, delightful.

- Developed with **React/JavaScript/Sass(SCSS)**
- Made from scratch to match JPEG screenshots of a design for [a challenge from Front End Mentor](#)

[chordinate](#) ([app](#)): Communal virtual keyboard for remote piano tutoring using WebSockets

- **Express.js/Node.js** backend with **socket.io**; **React** frontend with **WebAudio/WebMIDI** APIs
- Talk music theory and tutor piano with this visual chatroom for MIDI keyboards, plug-and-play

## ACADEMIC EXPERIENCE

PhD UC Berkeley, *Computer Science*

2014-2020

- Organized workshops and presented my research achieving [new results](#) in **Learning Algorithms**, **Cryptography**, Pseudorandomness, and Complexity Theory published in my field's top conferences
- Presented my work at MIT, Stanford, UCSD, etc., [extensive teaching and outreach](#) from Intro Python to Grad Crypto, and prominently featured in [a short pop-sci film](#) about Complexity Theory

BA CSU Sacramento, *Math & Computer Science, minor in Statistics*

2009-2014

- Coursework in **Java**, with specialized courses on, e.g., **C**, **Octave/MATLAB**, **R**, and **Scheme**
- Graduated with Highest Honors, Commencement Speaker