

PROFILE

UCBerkeley undergraduate student interested in math, computer science, and philosophy. Seeking internships in research and industry. Able to work well under pressure and get along with all ages. Passionate about sailing, long-distance hiking, and data privacy.

EDUCATION

University of California, Berkeley
Pure Mathematics and Computer Science
Bachelor of Arts Expected 2023

High School Undergraduate Coursework
Harvard, Harvard Extension, Tufts
2012 – 2018 3.7 Unweighted GPA

Cambridge Rindge & Latin High School
Class of 2018 4.6 Weighted GPA

COURSEWORK

Mathematics: through multivariable calculus, linear algebra, probability, and abstract algebra, covering discrete math, probability, set, group, and ring theory

Computer Science: cryptography, type theory, data structures, abstraction and design of computation

Relevant Science and Humanities: physics, economics, game theory, comparative government, political philosophy

LANGUAGES

Very comfortable:

Haskell, OCaml, Python, C++, Java

Experienced:

HTML, CSS, Mathematica

PRACTICAL SKILLS

- Unix and Linux, \LaTeX , Git/GitHub, Jupyter Notebook
- Research integrity training from Harvard
- CPR/AED/First Aid certified
- Conversational Spanish

HOBBIES

- Hiked the 923km Camino de Santiago Norte and Primitivo pilgrimage trails solo in 2019 through Northern Spain
- Planning to hike the Appalachian Trail from Georgia to Maine in the near future

EXPERIENCE

Adjoint, Inc.

Software Engineering Intern

August 2018 - January 2019

Boston, MA

- Developed an implementation of the SHA256 hashing algorithm and Merkle Tree inclusion proofs in Haskell in the form of an arithmetic circuit to be compiled and used for proof-of-asset cryptographic protocols.
- Improved type inference and workflow soundness for the company's non-Turing complete contract language (FCL).
- Projects involved zero-knowledge proofs, circuit compilers, type theory, and elliptic curve cryptography.
- Collaborated remotely with engineers in London, UK and travelled internationally on business trips.
- Transitioned as a first-time Haskell programmer from OCaml while on-boarding.
- Advisors: Stephen Diehl, Havell Rodrigues, Thomas Dieter, Alberto Centelles.

MetroHacks

Executive Director 2017-18, Current Board Member

Boston, MA

- Entirely student-run nonprofit hackathon for Northeastern high-schoolers.
- Formulated the project timeline for sponsorship, web design, logistics, marketing, and community outreach for a nine person organizational team. Developed educational partnerships with Boston-area organizations.
- Point-person for two 12-hour girls hackathons and one 24-hour 350+ person event. Member of co-founding team of the MetroHacks Women branch.
- Recruited, interviewed, and trained new team of volunteers.

Harvard Institute for Applied Computational Science Research Assistant

February 2017 - August 2017

Cambridge, MA

- Scraped and cleaned data, implemented Gaussian process and land-use regression statistical models of Boston-area air quality, and assisted in the creation of an educational web interface.
- Collaborated on a five person team during the Harvard Data Science Research Experience for Undergraduates program. Co-wrote scientific research paper on our findings and presented to faculty.
- Advisors: Dr. Pavlos Protopapas, Dr. Weiwei Pan

References and full course transcript available upon request