

William Arnold

(510)-529-8523

willarnold@berkeley.edu

github.com/aphoh

EDUCATION

University of California, Berkeley, College of Engineering Class of 2021
BS – Electrical Engineering and Computer Science Major, Math Minor
GPA: 4.0, Highest Honors, University Medal nominee

With a focus on
Machine Learning
Theoretical Physics

EXPERIENCE

Polygon Labs

Senior Engineer, Applied Research

November 2022 — Current

- Developed a novel polynomial commitment multiproof scheme, increasing the throughput of data availability systems by 16x.

Eluvio

Software Engineer

June 2020 — August 2020, October 2021 — November 2022

Berkeley, CA

- Built a high security distributed key-management system in Rust.
- Developed and deployed a non-custodial e2e payments protocol for marketplace platforms.

UC Berkeley

Undergraduate Student Instructor & RL Researcher

August 2018 — May 2021

Berkeley, CA

- Conducted research in Prof. Spanos lab on Reinforcement Learning in Energy Systems leading to a 3 week energy usage experiment in Singapore.
- Taught undergraduates discrete math and probability theory (CS70) in person and virtually. Held office hours, proctored, and graded exams.

Procore Technologies

Machine Learning Intern

June 2019 — August 2019

Santa Barbara, CA

- Combined supervised image encoding with Gaussian clustering in order to find latent classes in a dataset of construction images, creating a low-noise, domain-specific dataset 8x larger than any existing dataset and greatly increasing model performance.

Activate Inc., at Google

Technical Lead

San Francisco, CA
February 2016 — August 2018

- Implemented a spatial, unsupervised machine learning algorithm to identify the most attractive food concepts around 50+ locations in the Bay Area for a Fortune 500 company.
- Built a model to predict how Google employees move and eat in on-campus cafeterias to reduce food waste.

Skydeck Berkeley

Data Analyst and Ambassador

Berkeley, CA
July 2016 — July 2018

Gradescope

Android Developer

Berkeley, CA
September 2014 — July 2016

PUBLICATIONS

- Adapting surprise minimizing reinforcement learning techniques for transactive control. In *Proceedings of the Twelfth ACM International Conference on Future Energy Systems*, e-Energy '21. 2021 (1st author)
- Pricing in prosumer aggregations using reinforcement learning. In *Proceedings of the Twelfth ACM International Conference on Future Energy Systems*, e-Energy '21. 2021 (3rd author)

SKILLS AND COURSES

Software Engineering
Data Analysis
Machine Learning

High Performance Computing
Quantum Field Theory
Reinforcement Learning

Rust
General Relativity
Probability Theory

Cryptography
Distributed Systems
Trustless Systems

ACTIVITIES

Cal Sailing Team — Varsity Skipper and Fleetmaster

August 2018 — May 2021

Sailed for UC Berkeley and maintained FJs at Treasure Island Sailing Center. Bowman, Skipper in Big Sail 2018, 2019 against Stanford at St Francis Yacht Club.