

William Francis Arnold

willarnold@berkeley.edu | github.com/Aphoh | swaglu.com

Education

Korea Advanced Institute of Science and Technology (KAIST), South Korea

September 2023 – Current

MS, Kim Jaechul School of AI, MLILAB under Professor Eunho Yang
Research on LLM Inference Efficiency & LLM Training

University of California, Berkeley

August 2017 – May 2021

BS, Electrical Engineering and Computer Science Major, Math Minor
Graduate Coursework in Computer Science, Theoretical Physics

Highest Honors

University Medal Nominee

Experience

Polygon Labs

November 2022 – August 2023

Senior Engineer, Applied Research

San Francisco, CA

- Developed an efficient multiproof commitment scheme, increasing the throughput of data availability systems by 16x and enabling linear scaling in data size.

Eluvio

June 2020 – August 2020, October 2021 – November 2022

Software Engineer

Berkeley, CA

- Built a hardened distributed key-management system in Rust, runnable in Intel SGX and AMD MET, securing \$100M+ worth of media assets from Fortune 500 companies.

UC Berkeley

August 2018 – May 2021

Undergraduate Student Instructor & ML Researcher

Berkeley, CA

- Conducted research in Prof. Costas Spanos lab on Reinforcement Learning for intelligent control of Energy Systems in large buildings, leading to a 3 week energy usage experiment at the National University of Singapore.
- Taught discreet math and probability theory (CS70) in person and virtually, receiving 4.97/5.0 on student evaluations, relative to the 4.4/5 department mean.
- Held over 200 office hours, proctored, wrote, and graded 12 exams.

Procore Technologies

June 2019 – August 2019

Machine Learning Intern

Santa Barbara, CA

- Combined supervised image encoding with Gaussian clustering in order to find latent classes in a domain-specific image dataset, resulting in an 8x larger and cleaner dataset, increasing image tagging accuracy by 20%.

Activate Inc., at Google

February 2016 – August 2018

Technical Lead

San Francisco, CA

- Implemented a spatial, unsupervised machine learning algorithm to identify the most attractive food concepts around 50+ locations in San Francisco 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

July 2016 – July 2018

Data Analyst and Ambassador

Berkeley, CA

- Analyzed data from 100+ startups to produce success metrics for the Skydeck accelerator program.

Gradescope

September 2014 – July 2016

Android Developer

Berkeley, CA

- Created a mobile app prototype for homework submission, decreasing submission time by 40%.

Publications

- Continuous Convolutional Neural Networks for Disruption Prediction in Nuclear Fusion Plasmas. In *NeurIPS CCAI*. 2023 (1st author)
- 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)

Activities

Cal Sailing Team – Varsity Skipper and Fleetmaster

August 2018 – May 2021

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