Stefano Yushinski

Education

Aug. 2017–May 2021 **B.S.E in Computer and Information Science**, *University of Pennsylvania*, Philadelphia, *GPA: 3.13, Major: 3.27.*

Relevant Courses Intro to Computer Systems, Automata Computability & Complexity, Data Structures and Algorithms, Operating Systems, Intro to Cryptography and Networks, Software Design & Engineering, Data Analytics in R, Intro to Algorithms, Computer Organization and Design, Product Design, Hardware and Software Co-Design for Machine Learning Performance, Database & Info Systems

Experience

Vocational

July 2021–Present **Senior Software Engineer**, *Fullstack*, Intuit, Mountain View, CA.
Led a team of software engineers to maintain, develop, and solve customer problems for the Workforce Web App. Developed and collaborated with cross-functional teams to deliver an E-Signature user experience. Go-to expert for front end web development, debugging, and integrations with backend services. Provided mentorship to software engineer apprentices that have been hired back as full time engineers.

Spring 2021 **Teaching Assistant**, *HW & SW Co-Design for ML*, University of Pennsylvania.
Provided office hours for students to help them grasp conceptual ideas on a broad array of machine learning concepts and how to improve performance of machine learning models by leveraging parallel processes, and downsizing models to make them more accessible on edge devices.

Summer 2020 **Software Engineer Intern**, *Quickbooks Integration & Automation*, Intuit, Mountain View, CA.
Worked on improving Quickbooks automation by integrating machine learning models into the frontend codebase, as well as improving UX and quickfixing bugs.

May 2019–July 2019 **Engineering Research Intern**, *National University of Singapore*, Singapore.
Researched machine learning models and their accuracy for localizing sensor nodes in an indoor wireless sensor network for a mobile life sign monitor medical device. More about the research project, **Localization of Sensor Nodes**, is mentioned below.

June 2018–Sept. 2018 **Front End App Developer Intern**, *Teamtrics*, Philadelphia.
Learned and executed conceptual front end frameworks of an Android app and single handedly developed the Front End in the native language of Java via Android Studio.

Projects

2021 **FPGA-Accelerated Matrix Mult. for CNN**, *HW & SW Co-Design for ML*, University of Pennsylvania.
Used Vivado High Level Synthesis and HDL techniques to develop a FPGA accelerated Matrix Mult. to run on the VGG-16 CNN. Programmed the hardware accelerated layers using Vivado HLS as well as C, and C++. Also, built a C++ extension to replace the conv2d layers of VGG-16 with the aforementioned FPGA accelerated layers in Python, and then benchmarked results in Python.

2020 **PennOS**, *Operating Systems*, University of Pennsylvania.
Worked with a team to develop an operating system with a proper scheduler, file system and shell. Worked on the file systems, as well as integrating the file systems with the scheduler and shell. Developed skills in cooperation with a team on an extensive project built in C as well as understandable code for the API of the file systems.

2019 **Kinitro**, *Software Design & Engineering*, University of Pennsylvania.
Worked with a group to full-stack develop a mobile app for Android using Android Studio for frontend and Node.js as our backend. Later on translated the front end to build it on React Native for interest of learning.

2019 **Localization of Sensor Nodes**, *Mobile Life Signs Monitor*, National University of Singapore.
Collected data and curated it to train multiple models to test the performance of Neural Networks, SVMs, and Multiple Linear Regression using sklearn-expertsys and TensorFlow in Python to localize sensor nodes within an indoor low energy bluetooth sensor network.

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