
EXPERIENCE

• Google*Software Engineer*

Kirkland, WA

Jan 2021 - Mar 2023

- **Vertex AI Geoexpansion:** Deployed the Vertex AI Training and Vertex Vizier Hyperparameter Tuning services to 14 new regions around the world. Wrote scripts and playbooks to significantly reduce the manual effort required to deploy both products.
- **Google Cloud Game Servers:** Added functionality to Google Cloud Game Servers application in Golang to automatically install Agones on user-created Kubernetes clusters and perform required version updates over time.

• Independent Game Developer*Creator & Software Engineer*

Salt Lake City, UT

Sept 2019 - Present

- **Virtual Tabletop:** Developed a virtual gaming tabletop for users to play RPGs and miniatures games over a websocket. The VTT can build 3d maps from layers of 2d images using a novel terrain building system, and is rendered using PixiJS in a React app. Built a microservice application from scratch, using Node.js, MongoDB, and Kubernetes, hosted on Amazon EKS. [\[video demo\]](#)
- **Warpvector:** Built a physics-based roguelike space adventure game in vanilla JS playable either as a browser game or Electron app. Gameplay, including art and animations, is rendered solely via DOM manipulation. [\[Steam page\]](#)

• Pluralsight*Software Engineer*

Salt Lake City, UT

Oct 2019 - Dec 2020

- **React App Development:** Added new functionality for video course authors to edit their profile, view payment and viewership analytics data, and browse and apply to opportunities for new courses.
- **Node.js Server Development:** Added email communications to give authors feedback when they apply to teach a course and are accepted or rejected. Integrated our team's services within Pluralsight's larger system using RabbitMQ, external APIs, and replicated databases.

• Recursion Pharmaceuticals*Software Engineer*

Salt Lake City, UT

Feb 2017 - Sep 2019

- **Experiment Design Tools:** Extended Go API and developed an accompanying React app for data scientists and biologists to design cell culture plate layouts for experiments to identify disease phenotypes and treatment candidates using microscopy.
- **Image QC & Feature Labeling:** Developed ClojureScript/Reframe application with a Flask backend to review images from large microscopy experiments, perform live custom compositing of multi-channel images, overlay cell segmentations, and apply labels to images and image regions for use in training classifiers.
- **Infrastructure & Support Tools:** Created various microservices and apps in Go and Flask to support our image processing pipeline. Created various Splunk dashboards with custom search commands to track experiment status. Configured CI/CD with Travis to automatically deploy apps to Kubernetes on merge to master.

• UCLA Cardiac Proteomics and Signalling Laboratory*Programmer Analyst*

Los Angeles, CA

Jan 2013 - Jan 2017

- **ProTurn:** Developed a command line and GUI application in Java to perform protein turnover analysis on heavy water labeled mass spectroscopy data, and display data in graphical and tabular formats. Built with JavaFX and Apache Commons Math. Coauthored four related publications, viewable at orcid.org/0000-0002-9930-2169
- **Batch Processing Manager:** Set up and configured a local cluster to run protein library search batch processing (OpenPBS) jobs. Developed a GUI application in Java to create and monitor jobs.

• US Navy*Submarine Reactor Operator*

Apra Harbor, Guam

Jan 2006 - July 2011

- **Watchstanding:** Stood over 5,000 hours of watch as Shutdown Reactor Operator, Reactor Operator, Reactor Technician and Electrical Operator while S6G reactor plant was critical and shutdown.
- **Maintenance:** Conducted repairs and preventative maintenance on reactor instrumentation and control systems.

EDUCATION

• University of California, Los Angeles*Bachelor of Science in Physics*

Los Angeles, CA

2015