

Publications: Pharma Manufacturing with Google Cloud (2020), Local IDEs & Cloud AI Platform (2021)

Certifications: Google Cloud Professional Architect and IBM Professional Solution Engineer.

AI Libraries & Frameworks: TensorFlow, Keras, and Kubeflow.

Programming languages: Python, C#, Java, SQL, F#, C++, OCaml.

Web: JS/CSS/HTML. JQuery, AngularJS, Ionic, .NET MVC.

Databases: Microsoft SQL Server, PostgreSQL, Apache HBase, and Firebase.

Education

Masters of Applied Data Science | University of Michigan - expected winter 2023

B.S. Computer Science | University of California, San Diego

Classes in AI | Stanford University

Experience

10/2019 - Present | Google

Sr. Solution Engineer, Machine Learning

Mountain View, CA

- Design and launch machine learning cloud solutions that generate more than \$4 billion in yearly revenue for Google.
- Led cross functional teams of 50+ individuals across product, engineering, professional services, and leadership to meet and exceed OKRs on strategic projects in Google Cloud.
- Identify key user pain points, design and prioritize product features, and collaborate with engineering to implement and release AI Platform updates. Determine essential metrics and objectives to track feature success from private beta to public launch.
- Published "Pharma Manufacturing with Google Cloud" in 2020 - a reference guide for connecting manufacturing devices to the cloud and performing inference on IoT data and making key technical decisions.
- Implemented a genomics processing pipeline using Sentieon and the Life Sciences API at one of the largest life sciences and sequencing companies in the world, accelerating R&D efforts to process more than 20 petabytes of genomic data a year. The pipeline leveraged multiple geographical regions and up to 50,000 CPU cores simultaneously.
- Contributed to OSS TensorFlow on GitHub, enabling developers to better leverage the TensorFlow Model Garden for BERT pre-training.
- Designed a document AI solution to reduce human labor on document analysis in the financial sector. Resulting in 40% faster processing times, and a cost reduction in the millions of dollars.
- Published guides related to Vertex AI (Our ML platform in GCP) that get developers up and running with local development tools and remote notebooks, model training, and model serving APIs.

10/2017 - 10/2019 | IBM

Solution Engineer for Healthcare & Life Sciences

San Francisco, CA

- Organized more than 80 IBM architects and engineering business partners to design and deliver a high performance computing system (HPC) driving \$100 million in revenue for IBM, exceeding our metrics for success.
- Designed a new platform for a Fortune 100 life sciences company that allowed them to effectively manage their HPC systems around the world which resulted in a 30% increase in efficiency through the consolidation of data and computing resources.

- Headed the engineering team from gathering requirements through implementation on a new compute cluster for research workloads at one of the largest university supercomputers in the nation. Resulted in \$2 million in revenue for IBM and lowered the client's cost per terabyte of storage by 50%.
- Hosted TensorFlow and machine learning workshops in North America to enable our client-facing engineers on how to position OSS frameworks and cloud computing in the enterprise.

6/2016 - 10/2017 | Gradelink (Gradelink.com)

Sr. Software Engineer & Team Lead

Lake Forest, CA

- Led the engineering organization in the transition to the Scrum development methodology. Through efficient developer meetings and meticulous Jira hygiene, we were able to increase developer productivity by 80% and create a more accurate product roadmap.
- Architected a public API for our core services, enabling a secure and scalable modular approach to add new products and features onto the Gradelink Platform (ASP .NET web API, MS SQL Server).
- Successfully managed the integration of our software with a multi-billion dollar partner in the industry by using proven cloud patterns and effective team management which unlocked \$50 million in pipeline for our sales org.
- Implemented differential backups for our MS SQL server (RDBMS for all products), allowing us to significantly reduce our recovery time objective and reduce our backup footprint by 80%.
- Optimized complex database queries in order to improve our server utilization which reduced latency on mobile devices by 90%.

7/2012 - 6/2016 | Gradelink (Gradelink.com)

Software Engineer

Lake Forest, CA

- Full stack web software engineer for the education sector to manage millions of student records, enrollments, payments, and facilitate student/teacher communication.
- Working closely with the product team, we designed and wrote Gradelink's first mobile application using the Ionic framework (AngularJS, HTML, SASS). Created a public RESTful API on the backend written in .NET that enabled all core client services.
- Engineered production and backup server strategies to improve our SLOs and SLAs. Created new CI/CD processes that reduced downtime during rollouts and reduced the number of software bugs from making it into production.

Side Projects

Nanome - Virtual reality software for molecular design (Nanome.ai)

- As a technical team lead at Nanome, I set OKRs and determined technical direction on strategic product features.
 - Enabled a low latency voice and movement experience for our users to ensure a comfortable and smooth molecular design workspace
 - Created both a local and cloud model that enabled large life sciences companies to run our virtual reality software disconnected from the public internet if needed.
- Used Unity, BitBucket, and Jira to develop virtual reality software and deploy it to both Steam and Oculus store fronts.