

EXPERIENCE

Software Development Engineer 2, *Amazon Web Services (AWS)*, Sunnyvale, CA

Apr 2021 - Present

- Working on Developer Experience for the Cloud based Spatial Simulation Service AWS Simspace Weaver that enables large scale multi agent Spatial Simulations for Digital twins. Focusing on Unreal Engine developer experience via plugin and SDK.
- <https://techcrunch.com/2022/11/29/aws-simspace-weaver-can-run-city-sized-simulations-in-the-cloud/>
- Worked on Synthetic Data generation to train computer vision ML models in manufacturing and other industries using game simulation engine Unreal Engine 4. Worked on the project from inception to launch to working with initial customers that shaped the service API.
- <https://techcrunch.com/2022/06/23/amazon-launches-ground-truth-synthetics-to-create-virtual-objects-for-ai-mode-l-training/>

Feb 2019 - Mar 2021

Member of Technical Staff 3, *VMware*, Palo Alto, CA

- Working on NSX Control Plane. It's a highly available multi-node distributed system.
- Responsible for data sync protocol among nodes to make sure it's fault tolerant and available. Deployed optimization between two nodes using Merkle tree that highly improved sync performance by reducing the amount of data exchanged between nodes significantly after a reconnect.
- Implemented proprietary Golang RPC library to enable communication with Kubernetes nodes on public cloud
- Tech stack: Java, Go, Protobuf, RPC, Bazel, Redis, NoSQL

Software Engineer, *Evernote*, Redwood City, CA

Oct 17 - Jan 19

- Designed, built, and deployed generic, multi-platform, and scalable user personalization platform which will help drive future growth of the company. The platform can be used for providing a personalized experience, A/B testing, and rolling out new features to a select audience.
- It has brought down new experiment time from a month to a couple of weeks.
- We use Java, gRPC, Protobuf, Kubernetes, GCP

Research Assistant, *School of Computing*, University of Utah

Jan 16 – July 17

- Worked on Data Structure Analysis of C code for alias analysis using LLVM.
- Wrote LLVM pass to implement memory safety features in SMACK(<http://smackers.github.io/>) tool.
- A frequent contributor to StackOverflow questions related to LLVM

Software Engineer, *Pipemonk (Formerly Zapstitch)*

May 14 – July 15

- Developed microservice approach based modular platform for data integration. This allowed easy and fast integration of different data sources to the platform and target a larger group of the customer base.
- This development work led to a funding round of \$2 M.

TECHNICAL EXPERIENCE

Personal Projects

- **Stock Prediction** – Applied sentiment analysis techniques to stock related news articles to successfully predict stock market trends. Used Apache Spark for big data processing. **Project Report:** <https://goo.gl/EEszfN>
- **Sharded Key/Value Service** – Developed Paxos based persistent sharded Key/Value service in Golang as part Distributed Systems class.
- **Home Service Robot** - Home service robot project using ROS, ROS, Gazebo, SLAM, Motion Planning - <https://bit.ly/3akJnLr>

Programming Languages and Technologies

- C++, Python, Java, C, Go, Javascript
- Unreal Engine 4, AWS, Non-blocking (asynchronous) and thread-safe programming in Java, Kubernetes, docker container, Java Guice, Protocol Buffers, gRPC, LLVM, Spring MVC, AWS, Google Cloud Platform, Maven, REST API

EDUCATION

Master of Science in Computer Science

Fall 15 – Spring 17

University of Utah, Salt Lake City, Utah

B.Tech in Information and Communication Technology

Fall 09 – Autumn 13

Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar, India