

SUMMARY

5+ years of experience with full-stack distributed software design, development, and deployment. In my current role as a Founding Engineer at Anoki Inc, I have led the development of a state-of-the-art contextual video search platform. My work has involved architecting and implementing live HLS stream recording, building scalable distributed systems, and developing a recommendation system that significantly enhanced our content discovery experience. Additionally, I have hands-on experience with Go, TypeScript, Svelte, Kubernetes, Metaflow, GraphQL, gRPC, Load Balancers and various AWS services.

WORK EXPERIENCE

Senior Software Engineer - Anoki Inc

Mountain View, CA, USA | June 2023 – Current

- Built **full-stack** contextual video search driving core business, with Go/Svelte. Optimized search latency with multi-layered caching and GraphQL dataloaders.
- Implemented HLS feed recorder in Golang for hundreds of simultaneous live TV channel streams, based on a **scale-out architecture**.
- Designed a reliable **ML pipeline** for **scene detection**, distributed across a **medium-scale GPU cluster**.
- Built recommendation engine adding hyper-personalization for TV channels. Improvements analyzed with A/B tests.
- Developed **core platform libraries** interfacing Consul with Service Discovery mechanisms.
- Implemented GraphQL APIs for Content Management & Scheduling.
- Introduced team to latest technologies for big data processing and reporting tasks.

Skills: Go, Python, TypeScript, Svelte/SvelteKit, Kubernetes, Metaflow, Airflow, Protobuf, gRPC, MySQL, MongoDB, Consul, Presto, Superset, HaProxy, GraphQL, AWS Mediaconvert, AWS S3, AWS Cloudfront, AWS RDS, AWS EKS, AWS ECR, Prometheus, OpsGenie, Grafana.

Software Engineer Intern - PayPal

New York City, NY, USA | May 2022 – August 2022

- Improved static type checking for GraphQL resolvers based on a schema-first design philosophy, increasing maintainability.

Skills: TypeScript, GraphQL.

Senior Software Engineer - LG Ads

Bangalore, KA, India | June 2017 – June 2021

- 5x latency optimization for a **large-scale distribution network** for Audio Content Recognition system.
- Lead projects in the realm of **core platform development** with monitoring, logging and distributed storage layer.
- Setup and managed key infrastructure projects: load balancers, and large-scale Spark cluster.

Skills: NodeJS, Python, Airflow, Bash, Docker, MySQL, HDFS, Ceph, Spark, Mesos, Kafka, Ansible, Jenkins, Prometheus, EtcD, HAProxy, Linux firewall.

Google Summer of Code - Python Software Foundation

Bangalore, KA, India | April 2016 – August 2016

- Built **coala-html**, an interactive static code analysis tool with 97% code coverage for AngularJS and, 100% for Python.
- Presented a workshop to guide open-source contributions using Git and CI/CD at EuroPython conference in Bilbao, Spain.

Skills: Python, AngularJS, HTML, CSS, Git, TravisCI, Docker, Karma, Mocha, ChaiJS.

PATENT

- System For Contextual Searching Using Text Search Terms**

Feb 2024

EDUCATION

M.S, University of Colorado, Boulder

Aug 2021 – May 2023

B.Tech, National Institute of Technology, Trichy

July 2013 – May 2017

RELEVANT COURSES

Advanced Data Structures and Algorithms, Network Systems, Distributed Systems, NLP and Deep Learning, Database, Blockchain

PROJECTS

- Image Defogging using DDPM** : A **generative model** leveraging U-Net and a linear noise scheduler to enhance the Foggy CityScapes dataset. **May 2023**
- Distributed Config Deployment**: A **fault-tolerant system** based on a spanning tree topology. [\[Github \]](#), [\[YouTube \]](#) **Dec 2022**
- Named Entity Recognition** : **Fine-tuned LLMs** on a medical dataset achieving F1 score of 0.91, ranking 1st in class. **Dec 2021**
- SemEval-2022 Task-4**: Detecting patronizing and condescending language with fine-tuning **LLMs**. [\[Github \]](#) **Dec 2021**
- GitMate**: Contributed bug fixes and new features for ranking bugs in GitMate, an automated code review and issue triaging platform for GitHub projects. **2016**