# SURYA GANESH

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Google Scholar

#### **EMPLOYMENT**

Founding Engineer Encore Inc Jan 2025 - present

- Built Recommendation engine and Video processing and tagging pipeline for the marketplace.
- Designed and Built **MultiModal Vector Search** engine with both text and image.
- Increased app reliability by increasing crash free sessions.

## **Senior Systems Engineer**

NimbleEdge

Jan 2023 - July 2023

On-Device ML

- Led a team of 8 Engineers on project execution and delivery.
- **Designed Software Systems with 100M MAU**. Systems I built were handling 20K requests per second at peak load. We did 50M inferences a day on EdgeML deployments.
- Implemented Federated Learning (FL) Research such as FedAvg, Model Fine-tuning in the edge, Client Selection Polling, Secure Aggregation, etc.papers into Deployable and maintainable applications.
- Architected embedded edgeML SDK built on top of Onnx runtime.

### **Software Development Engineer II**

**Skyflow** 

Oct 2021 - Dec 2022

Governance Engine Team

- Optimized the governance engine reducing p99 response time from 150 ms to 5ms at 15K RPS by leveraging hierarchical caches and cache invalidation algorithms.
- **Redesigned control and data planes**, from a single tenant architecture to a multi-tenant architecture. With data residency across multiple regions. Which Reduced Server cost by 67% annually.
- Migrated from an Arangodb based backend to Mongodb, with 80 Million records coming to about 1TB data, with zero downtime.

**Platforms Engineer** 

**Acko Insurance** 

July 2019 - Oct 2021

**Platforms Team** 

- Managed more than 300 Releases over a period of 7 months, while maintaining zero down time in a monolithic rust codebase
- **Collaborated across 9 teams** and migrated their services into a common platform. Improving SLAs across different Lines of Businesses.

#### **EDUCATION**

**MS - Privacy Engineering** 

**Carnegie Mellon University** 

Aug 2023 - Dec 2024

GPA 3.78/4, Coursework: Deep Learning, Prompt Engineering, AI Venture Studio, etc.

**BE - Instrumentation Engineering** 

**Anna University** 

April 2015 - April 2019

GPA 3.9/4, Coursework: Control System, Digital Signal Processing, VLSI Design, etc

**P**ROJECTS

Core Contributor Speaksharp.io

Mar 2024 - Present

- Built speaksharp.io, a digital language and communication coach converting your personal daily conversations to learning opportunities, using Python, voice diarization, prompt engineering, etc.
- Top 5% for YC Summer '24 batch.

### **S**KILLS

- Languages: Rust, Golang, C++, Java, python, javascript
- Tools/Frameworks: Onnx, kafka, K8s, Docker, EKS, Azure, gRPC, AWS, react-native, Ray, Kotlin, Elasticsearch

### **A**CHIEVEMENTS AND **P**UBLICATIONS

- SPARK grant for Entrepreneurship, CMU '24
- Privacy Engineering Scholarship, CMU '23
- 7x Hackathon winner