

SABARISH MUTHUMANI

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Work Experience

Virginia Tech IT

May 2025 - Present

Network Engineer

Blacksburg, Virginia

- Developed a monitoring solution using **Zabbix** and PostgreSQL, and managed logs with **ELK Stack**.
- Installed OS with **ZFS** and **GRUB**, ensuring reliable boot for **RAIDZ1** pool, with fault tolerance for single disk failure.
- Set up **DELL EMC** and **Synology PCIe** storage solution, to enhance r/w performance for data management.
- Configured **NVIDIA GPUs** for deep learning/AI research, accelerating model training and **KVM** virtualization.

July 2024 - May 2025

Graduate Assistant

Blacksburg, Virginia

- Managed authentication using **Ansible**, integrated **LDAP** with **2FA** for secure access within the college.
- Configured **Cisco** switches, enabled **firewall** on servers, and optimized file systems to meet specific requirements.
- Created virtualization clusters for **5G** research, installing radios and setting up **KVM** for seamless integration.
- Enabled a real-time streaming platform using Kafka on **AWS** with **EC2**, **S3**, and **Docker** for student data processing.

Mouri Tech

May - July 2024

AI Analyst

Irving, Texas

- Developed a chatbot using Azure AI, OpenAI, and **GraphQL** for a Retrieval-Augmented Generation (RAG) application.
- Built a screening platform using **Azure** Vector Search and **Document Intelligence**, cutting hiring time by 40%.

Cisco Systems, Inc.

April 2022 - August 2023

Software Engineer

- Deployed scalable **SaaS** platforms by developing **async REST APIs** using **Java Spring Boot**, on **Kubernetes**.
- Resolved **XSS** vulnerabilities, **Kafka** lags, **Camunda** workflows, and **Angular** updates, improving performance by 30%.
- Developed an migration workflow for **1000+** customers, using **Node.js** scripts, reducing migration time by 75%.

National Payments Corporation of India (NPCI)

Nov 2020 - March 2022

Senior Associate Developer

- Onboarded **150** banks onto the **blockchain**-based Banking platform using Bash scripts, reducing setup errors by 80%.
- Implemented 3 **ACK** Verification Logic in **Node.js**, using **RabbitMQ** and **Redis** increasing success rate to 90%.
- Improved production deployments using CI/CD pipelines via GitLab CI and Jenkins, reducing rollback time by 75%.
- Boosted token generation through batch processing in Hyperledger Fabric using Golang, scaling token issuance by 150%.
- Provisioned **ElastAlert** and Kibana dashboards for monitoring using ELK stack, reducing manual monitoring.
- Set up OS and Kubernetes clusters for prod, staging, test, and dev environments to streamline SDLC and testing.

Kloudone Inc.

May - Sept 2020

Software Engineer

- Worked on **AWS** to **GCP** migration, managing data transfer, network setup, compute provisioning, containerization, and post-migration performance tuning.

Projects

Document Analysis with Azure Document intelligence | **Python**, **github**, **deepgram**, **groq**

July 2024

Live Streaming Application For Cricket | **Kafka**, **Airflow**, **Python**, **AWS EC2**, **docker**, **pandas**

March 2024

Custom Work Stealing Algorithm | **Java**, **Multiprocessor**, **Threads**, **ForkJoin Pool**, **Java**

March 2024

Real-Time Scheduling on Arduino Mega | **Arduino**, **RTOS**, **CentOS**, **C/C++**

March 2024

Wildfire Detection using OpenCV | **OpenCV**, **Image processing**, **CNN**, **computer Vision**

December 2023

Education

Virginia Polytechnic Institute and State University

Aug. 2023 – May 2025

Master of Science in Computer Engineering, GPA: 3.8

Blacksburg, USA

Amrita School of Engineering

Aug. 2016 – May 2020

Bachelor of Technology in Computer Science and Engineering

Coimbatore, India

Technical Skills

Languages: C, C++, Java, JavaScript, TypeScript, Python, Go, SQL/NoSQL, Bash

Technologies/Frameworks: Angular, Node.js, Docker, Kubernetes, RabbitMQ, OpenCV, AWS, Hyperledger Fabric, React.js, HTML, CSS, RESTful APIs, Spring Boot, GitHub, Linux/Unix, SonarQube

Database Tools : PostgreSQL, MySQL, MongoDB, Redis