Venkatesh Bharadwaj Srinivasan

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SUMMARY

Senior Software Engineer at Qualcomm with expertise in building log-analysis Infrastructure and designing ETL pipelines for big-data analytics and visualization. Proficient in Data Science, Data Engineering, Data Pipelines and AI Frameworks for Agentic Workflows. Eager to contribute to NVIDIA's AI initiatives by leveraging technical skills and innovative solutions.

EXPERIENCE

Qualcomm, ***Senior Software Engineer - Agentic AI, Data Science, Data Engineering & Data Pipelines***
Jul 2021 - Present

Senior Software Engineer (Oct 2024 - Present)
• Developed an LLM-powered chat interface using a cost-effective REPL-style LLM log-analysis framework for log summarization, minimizing token spend and enhancing reliability, currently filing an OpenSource Contribution with LangChain.
• Implemented guardrails against jailbreaking, exposed security vulnerabilities, and established an observability framework to track performance and evaluate reliability of multi-agentic workflows.
• Led the expansion of the platform into camera and hardware domains, winning 1st place at the Qualcomm-wide GenAI Summit Competition, demonstrating technical leadership and innovation.

Software Engineer (July 2021 - Oct 2024)
• Built multi-stage data pipeline processing 10TB+ daily of semi-structured logs on AWS, enhancing data processing efficiency significantly.
• Modeled nightly KPI ETL using PySpark, Glue, Lambda, and Athena to S3 Parquet, resulting in faster rendering of QuickSuite Dashboards.
• Automated cloud updates via CI/CD (CodeCommit, Image Builder, and Step Functions), fully removing manual update work, saving 6 hours/week.

Analog Devices, ***Healthcare Algorithm ML Research Intern***
May 2020 - Dec 2020
• Developed a scalogram-based feature extraction algorithm using a CNN on the MIMIC-III dataset for Diabetes Detection, achieving 76.34% accuracy & 76.11% specificity.
• Created an algorithm to estimate time-domain & frequency-domain features (SDNN, normalized LF/HF, etc.) from PPG and ECG signals for mental health analysis, enhancing diagnostic capabilities.
• Published research in EUSIPCO 2021, demonstrating expertise in biomedical signal processing.

Medical Mechatronics Lab, National University of Singapore, ***Biomedical Deep Learning Research Intern***
May 2018 - Jul 2018
• Developed an algorithm to classify finger movements from Electromyography signals using CNN, achieving 72.5% accuracy, enhancing robotic arm movement tracking.

EDUCATION

Purdue University
M.S. • ***Electrical and Computer Engineering***
GPA 3.63/4

NIT Tiruchirappalli
B.Tech. • ***Instrumentation and Control Engineering***
GPA 8.97/10

LICENSES & CERTIFICATIONS

Agentic AI
DeepLearning.AI • df2406a8-69ea-46e9-9fb3-420c20594370 • Issued Nov 2025

SKILLS

Python • SQL • LangChain • Model Context Protocol (MCP) • Retrieval-Augmented Generation (RAG) • Amazon Web Services (AWS) • PyTorch • C++ • CUDA • PySpark