

Subramanian Raj Narayanan

(602) 767-9281 | rvanush3@gmail.com | www.linkedin.com/in/subraraj | <https://github.com/subra4112>

EDUCATION

Master of Science, Data Science, Analytics and Engineering

May 2026

Arizona State University, Tempe, USA

- Coursework: Data Processing at Scale, Statistical Machine Learning, Data Mining

Bachelor of Technology, Computer Science Engineering

May 2024

SRM Institute of Science and Technology, Chennai, India

- Coursework: Artificial Intelligence, Information and Visualization, Computer Architecture

TECHNICAL SKILLS

Languages: Python, Java, C++, SQL, Flutter

AI/ML: OpenAI (GPT-4), LangChain, Scikit-learn, TensorFlow, PyTorch, Streamlit, RAG pipelines, NLP, ROUGE/BLEU evaluation

Databases & Visualizations: Neo4j, Milvus, ChromaDB, CrateDB, PostgreSQL, MySQL, MongoDB, Power BI, Tableau, Excel

Data & Cloud: PySpark, Kafka, Hive, Airflow, Data Built Tool (dbt), AWS (SageMaker, Redshift), Snowflake

DevOps & APIs: Git, Docker, Kubernetes, Linux, FastAPI, CI/CD

OCR: PaddleOCR, LayoutLM, Text Detection, Parsing

Soft Skills: Analytical Thinking, Problem Solving, Collaboration, Communication, Initiative, Adaptability, Data-Driven Decision Making

EXPERIENCE

AI/ML Engineer Intern – Vera AI, St. Petersburg, Florida (Remote)

July 2025 – August 2025

- Developed ML features, 3D visualizations, and full-stack modules for VeraAI's AI-driven SaaS platform.
- Collaborated with cross-functional teams and CTO on QA, infrastructure tools, and agile product cycles.

Software Engineer - Trainee, Techavidity Business Solutions, Frisco, Texas (Remote)

June 2025 – August 2025

- Built Neo4j-based knowledge graphs (10K+ entities) and Python data pipelines with Git and CrateDB for real-time graph ops.
- Reduced query latency <200ms for 1K+ users via multithreaded graph resolution and entity linking.

Research Intern, Centre of Electric Mobility SRMIST, Chennai, India

September 2023 – February 2024

- Automated vehicle routing and backend logic optimization for 5,000+ users using Python, SQL, and distributed multi-threaded workflows, reducing latency by 18% and ensuring high-load scalability with fault tolerance.

PROJECTS

ArcDefense– AI Powered Cyber Defense and Threat Detection System

August 2025

- Orchestrated an ML workflow with LSTMs and BERT to detect malware C2 beaconing in DNS/HTTPS traffic, improving identification of stealthy command-and-control activity.
- Implemented a FastAPI + Streamlit system with real-time log ingestion and model inference, enabling AI-driven cyber defense.

CloudSage – AI Mentor for Infrastructure-as-Code

August 2025

- Designed a Streamlit-based tool to analyze Terraform configs using CodeBERT and NLP for detecting IaC anti-patterns and optimization opportunities.
- Planned features include real-time static analysis, AWS integration, and rule-based best practice recommendations.

EDITH-QA – LLM-Powered Mobile App Testing System

July 2025

- Developed a multi-agent testing system using Agent-S and android_world, enabling LLM-powered Planner, Executor, Verifier, and Supervisor agents to simulate and verify mobile UI tasks.
- Successfully tested tasks like toggling Wi-Fi and enabling Airplane Mode, with structured output logs for QA audit.

AskNeo – AI Query Engine with Knowledge Graphs and Semantic Search

June 2025

- Engineered a hybrid RAG system using Neo4j (3K+ nodes, 12K+ edges), ChromaDB, and GPT-4 via LangChain to enable multi-hop semantic and graph-based question answering.
- Designed a Streamlit UI with voice input and prompt tuning, benchmarking LLM output using ROUGE, BLEU, and cosine similarity. Streamlit UI with voice input; benchmarked output using ROUGE, BLEU, and cosine similarity.

Splitz – Intelligent Multi-User Billing with AI-Enhanced Receipt Parsing

May 2025 – Present

- Built a full-stack mobile application using Flutter and Dart to automate receipt uploads, extract Walmart bill details, and support real-time, multi-user bill splitting.
- Integrated PaddleOCR and LayoutLMv3 in Python to extract structured data (totals, taxes, itemized entries) from receipts.

LEADERSHIP EXPERIENCE

Director of Finance, Engineering International Student Association, ASU, Tempe, USA

May 2025 – Present

Operations Team Officer, The AI Society at ASU, Tempe, USA

July 2025 – Present