

SURIYA CHELLAPPAN

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EDUCATION

- **San Jose State University, California** Aug 2024 - May 2026
Master of Science in Engineering
CGPA: 3.4/4
Specialization: AI/ML & Cloud Technologies
- **Anna University, Chennai, India** Nov 2020 - April 2024
Bachelor of Technology in Information Technology
CGPA: 9.32/10

EXPERIENCE

- **Student Assistant, 3D Unity Development, San Jose State University, CA** Jan 2025 - Present
– Developed interactive **3D simulation models** in Unity, integrating precise controls for realistic user experiences.
– Improved rendering performance and physics interactions, increasing **frame rates by 20%**.
- **Member, Machine Learning SJSU Club, San Jose State University, CA** Aug 2024 - Present
– Developed an **audio-based multimodal ML model** using stacked ensemble methods, improving smart home voice command recognition by **25%**.
– Applied information-theoretic tools to compress RL state spaces, enhancing policy interpretability and generalization using unsupervised learning techniques.
- **Data Analyst Intern — E-Parisaraa Pvt. Ltd., Bangalore, India** May 2023 - Nov 2023
– Improved material recovery accuracy by **20%** by analyzing live crushing and dismantling data using **Python** and **SQL**.
– Created interactive **Tableau dashboards**, reducing reporting time by **40%** and accelerating high-value batch decisions.
– Built predictive models for yield forecasting, increasing revenue per batch by **12%** and profit margins by **9%**.

PROJECTS

- **ComposeMind Pro – Enterprise-Secure LCM Reasoning Engine** Mar 2025 - Apr 2025
– Built a role-aware reasoning engine using **Azure OpenAI, LangChain, and CosmosDB** to simulate structured summaries and internal knowledge synthesis.
– Deployed securely with **Azure Functions** and integrated authentication using **Azure AD** to ensure user-level access control.
- **InsightMed – RAG-Based Clinical QA System** Jan 2025 - Feb 2025
– Developed a clinical question-answering tool using **LangChain, Pinecone, and BioGPT**, supporting domain-specific retrieval and contextual reasoning.
– Integrated healthcare data via **FHIR/HL7** standards and hosted the platform using **AWS Lambda + API Gateway**, achieving over **80% accuracy** in test queries.
- **MultiLinguaResearcher – Multilingual Summarization & Research Agent** Oct 2024 - Dec 2024
– Built a multilingual summarization platform using **LangChain, mT5, and XLM-R** to handle articles, PDFs, and videos across 10+ global languages.
– Deployed using **Kubernetes + AWS Bedrock**, with a responsive interface built in **Next.js** supporting file uploads and custom research goals.
- **MarketMind X – AI-Powered Financial Sentiment & Forecasting** Sep 2024 - Oct 2024
– Designed a financial sentiment engine using **FinBERT, LLMs, and DeepAR** to process real-time news, Reddit discussions, and earnings transcripts.
– Implemented end-to-end automation with **CI/CD on AWS SageMaker**, improving prediction accuracy by **20%** for directional stock trends.
- **StyleMatch AI – Multimodal Fashion Recommender** Aug 2024 - Sep 2024
– Built a multimodal fashion assistant using **CLIP + Vision Transformers** to match selfies and voice/text prompts with real-time product data.
– Extracted product images via **Scrapy** and deployed on **AWS Lambda + SageMaker**, with visual previews in **Streamlit**.

SKILLS

- **Programming Languages:** C, C++, Python, Java, JavaScript, SQL, R
- **AI/ML:** Scikit-Learn, TensorFlow, PyTorch, OpenCV, NLP, MLOps, LLM, Agentic AI, Transformers
- **Frameworks:** Flask, ReactJS, NextJS, Flutter, Git, Streamlit
- **Developer Tools:** Docker, Kubernetes, CI/CD Pipelines (Jenkins, GitHub Actions), Jira, Pinecone, FFmpeg, Scrapy
- **Technologies:** AWS, GCP, Azure, Mysql, MongoDB, PostgreSQL, Unity, Blender

CERTIFICATIONS

- **Google Data Analytics** Aug 2023
- **Java Full Stack - Wipro** May 2023
- **Google IT Automation in Python** Sep 2022

ACHIEVEMENTS

- **AWS Cloudathon @ SJSU – 2nd Place Winner** Apr 2025
– Designed and deployed a scalable cloud architecture using React.js, FastAPI, ECS Fargate, and Aurora PostgreSQL. Showcased strong DevOps, cloud security, and teamwork skills through Terraform-driven AWS infrastructure.