

SAI RAM REDDY SOLLETI

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SUMMARY

Applied Artificial Intelligence master's student at Purdue University (4.0 GPA), building end-to-end machine learning systems, from multi-agent algorithms to multilingual speech and language models. Skilled in Python, PyTorch, TensorFlow, and Scikit-learn, with hands-on experience deploying containerized ML services to AWS. Seeking AI/ML engineering roles where research translates into deployed, measurable systems.

EDUCATION

Purdue University — M.S., Applied Artificial Intelligence Jan 2025 – Dec 2026 (Expected)
GPA 4.0 / 4.0

TECHNICAL SKILLS

Programming: Python, SQL, Java, C, JavaScript, PHP

ML & Deep Learning: PyTorch, TensorFlow, Scikit-learn, XGBoost, Hugging Face Transformers, OpenCV, LLM fine-tuning, RAG

Voice & Agents: Twilio, Deepgram, ElevenLabs, OpenAI Whisper, n8n

Data & Analysis: Pandas, NumPy, Matplotlib, Seaborn, SHAP, Jupyter, Anaconda

Cloud & MLOps: AWS (EC2, S3), Azure, Docker, Docker Compose, Cloudflare Tunnels, Git, GitHub Actions

Databases: MySQL, PostgreSQL, MongoDB, Elasticsearch

Web & APIs: FastAPI, Flask, React.js, Node.js, Express, REST

PROJECTS

Hotel Voice Agent — Conversational Booking System 2026

Built a phone line that takes hotel bookings: Twilio for telephony, Deepgram Nova-2 for speech, an LLM tool-calling layer over FastAPI and PostgreSQL, ElevenLabs for the reply, wired in n8n. Completed 95.6% of tasks across 90 staged calls at 4.8 s median turn latency.

Quantum-Secured Voting System — Quantum Machine Learning 2026

Implemented a voting platform with genuinely quantum randomness. Ballot receipts draw 96 bits from 16-qubit Hadamard circuits in Qiskit, alongside a BB84 key-distribution protocol; voter identity is decoupled by SHA-256 commitment, events by a hash-chained audit log.

HyCoNet — Hybrid Multi-Agent Cooperative Algorithm 2026

Designed a multi-agent algorithm pairing bounded-rational leader election with fairness-weighted task rotation and checkpoint recovery, benchmarked against nine consensus protocols. Held 0.94 fairness and 0.92 utilization, cutting consensus latency 44% below PBFT.

Road Sign Classification — Transfer Learning with ResNet-50 2026

Fine-tuned ResNet-50 on GTSRB in two phases, training the classification head against a frozen backbone before unfreezing the whole network at a lower learning rate. Final numbers: 98.46% test accuracy and 0.9845 weighted F1 across 43 classes on 12,630 held-out images.

Multilingual Transliteration Chat — with Whisper Voice Input 2025

Shipped a chat app that lets users talk to an LLM in ten non-Latin scripts, transliterating in the browser so raw text never leaves the client; faster-whisper voice input came later. Scored 93.4% exact-match accuracy on a 1,000-prompt corpus at 1.2 s median round trip.

Transformer Time-Series Forecasting 2025

Trained a small decoder-only transformer (128-dim embeddings, 4 heads, 3 layers) on 1,748 Bitcoin sequences drawn from 87,000 records via 40-step sliding windows. R^2 0.9213, MAE 0.1087 on held-out data.

Lang2Code — Natural Language to Python Code Generation 2024

Created a system that turns plain-English requests into Python, using a custom spaCy NER model with GloVe embeddings trained on 525 annotated queries across 20 intents and 10 entity types, mapping onto a library of 100 snippets behind a REST API.

CERTIFICATIONS

AWS Certified AI Practitioner, Amazon Web Services · 2026

CCNA (Cisco Certified Network Associate), Cisco · 2024

Java Full Stack, Wipro · 2023

Python 3 Programming, Univ. of Michigan / Coursera · 2023

Cybersecurity Essentials, Cisco · 2023

Introduction to IoT, Cisco · 2022

EXPERIENCE

Research Assistant — Purdue University Aug 2025 – May 2026

Worked with Dr. Ashok Vardhan Raja on distributed multi-agent systems and conversational AI, taking HyCoNet and the Hotel Voice Agent from implementation through benchmark design, measurement, and technical write-up.

Genpact — Process Associate Jul 2024 – Sep 2024

Resolved customer queries with cross-functional teams, cutting average response time by 15%, and supported rollout of new process policies and internal systems.