

Sriram Rao Chennamaneni

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SUMMARY

Software Engineer with 3+ years of experience building AI-enabled and automation-driven solutions. Proficient in Python, SQL, React, AWS, and Node.js with a strong focus on AI-powered workflows, ML-based forecasting models, REST APIs, and intelligent automation. Passionate about applying scalable, modern technologies to solve business problems and improve operational efficiency.

TECHNICAL SKILLS

Languages: Python, JavaScript (Node.js/React); SQL/NoSQL; Bash

Cloud/Platforms: AWS (Lambda, S3, API Gateway, CloudFront, DynamoDB, EC2, RDS, CloudWatch), GCP (BigQuery)

Backend & APIs: REST, Express, Flask/FastAPI; Auth (Cognito/IAM); design patterns; secure coding practices

Data/ML: scikit-learn, pandas, NumPy, TensorFlow; feature engineering; evaluation; telemetry for models

Observability: metrics/logs/traces; SLOs; dashboards; on-call runbooks

DevOps: Git/GitHub, GitHub Actions, CI/CD, IaC (Terraform); testing (PyTest); Agile/Scrum

AI/Agents: Prompt design, RAG, embeddings/orchestration; responsible-AI considerations

Security: least-privilege IAM, secrets management, input validation, auditability

PROFESSIONAL EXPERIENCE

Software Engineer – Machine learning | NextNRG, Inc. | Miami, FL

Jun '24 - Present

- Developed and deployed ML models in Python for energy forecasting and anomaly detection, improving grid reliability and renewable optimization.
- Built and scaled React + TypeScript front-end components with Node.js services on AWS, supporting high-traffic SaaS-style workflows and reducing deployment overhead by 40%.
- Designed accessible, interactive React dashboards with role-based access, improving feature adoption and real-time decision making for enterprise users.
- Implemented secure RESTful APIs using Node.js, FastAPI, AWS API Gateway, and Cognito, improving performance, security, and scalability of cloud services.
- Designed and delivered full-stack SaaS applications using React, TypeScript, TailwindCSS, Node.js, and Python (FastAPI), supporting scalable enterprise workflows.
- Automated grid data pipelines with AWS Lambda, S3, DynamoDB, and SQL, cutting data processing time by 50%.
- Directed internal CRM automation via Monday.com, streamlining workflows by 30% and improving CI/CD adoption.

Research Assistant | FIU - Applied Research center (Florida Power and Light) | Miami, FL

Mar '23 - May '24

- Cleaned, transformed, and analyzed large financial, ESG, and climate datasets (Bloomberg, Refinitiv, WRDS) using Python, SAS, and Excel, generating insights for research deliverables and executive reporting.
- Built automated Python pipelines to convert ADMS data into OpenDSS format, enabling real-time grid simulation and reducing model runtime by ~30%.
- Developed forecasting and classification models (scikit-learn, pandas, NumPy) for load, PV, and anomaly detection, providing early instability and fault indicators.
- Delivered dashboards, reports, and statistical summaries for 500+ entities (2006–2022), transforming raw data into actionable insights for planning and research teams.

Software Engineer | Cognizant (Client: - Northern Trust) | Hyderabad, IN

Jan '21 - Dec '22

- Developed and maintained backend services using Cobol, JCL, VSAM and IMS DB, improving system reliability and reducing downtime for large-scale financial applications.
- Optimized mainframe batch jobs and SQL queries, cutting CPU usage and runtime cost by up to 34% in production.
- Resolved 95% of production incidents and ad-hoc requests within SLA by debugging SQL/Squirrel logs and deploying fixes with minimal downtime impact.
- Delivered 20+ production-ready features using Agile/Scrum, CI/CD pipelines, automated testing, and code reviews to ensure high-quality releases.
- Automated 30+ migration and validation tasks (ServiceNow SRQs), reducing manual deployment effort and accelerating release cycles.

EDUCATION

Master of Science in Computer Science - Florida International University	Jan '23 - Apr '24
Bachelor of Engineering in Computer Science and Engineering - HITAM	Aug '16 - Oct '20

PROJECTS

Data Engineering Zoom camp | Docker, GCP, Terraform, Big Query, Mage.ai, DBT, Apache Spark, Kafka, Python

- Built ETL pipelines for large-scale ingestion using Docker, Spark & Kafka for real-time processing.
- Deployed workflows on GCP with Terraform & Big Query, improving scalability by 30%.

Phishing Websites Classification | TensorFlow, Keras, Python, Extreme Learning Machine, Scikit-learn

- Developed an Extreme Learning Machine (ELM) model achieving 97% accuracy in phishing URL detection, outperforming Naive Bayes and SVM classifiers.
- Built CNN, DNN, and HMM models with TensorFlow/Keras for tasks such as image classification and weather simulation, reaching up to 93% accuracy.

AI Workflows with n8n | OpenAI, Pinecone, Google Drive, Gmail, Tavily, Google Sheets, Automation

- RAG Chatbot –Built a RAG chatbot with Pinecone & OpenAI embeddings for dynamic document queries.
- Automated customer support via Gmail triggers & Pinecone knowledge base, cutting response time by 50%.
- Designed LinkedIn content workflows using Tavily, AI agents, and Sheets, automating content creation and scheduling.

Business Process Outsourcing System | Django, SQLite, HTML, CSS, JavaScript

- Developed a web-based outsourcing platform for HR, content management, and healthcare services.
- Improved user experience with a responsive HTML/CSS/JS frontend, while managing workflows and transactions through Django + MySQL backend.

CERTIFICATIONS

- Google Cloud Professional Data Engineer
- Microsoft Azure Fundamentals.