Sai Sree Sadhan Polimera

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EDUCATION

University of Florida   Aug 2023 – May 2025
Master of Science in Computer Science   *Gainesville, FL*

Coursework: Data Structures & Algorithms, Machine Learning, Cloud Computing, Object-Oriented programming (OOPs), Artificial Intelligence, System Design, Full-Stack Development, NLP, Data Science & Analysis, Data Engineering.

Amrita Vishwa Vidyapeetham   Jul 2017 – Jul 2021
Bachelor of Technology in Computer Science   *Coimbatore, India*

Coursework: Data Structures & Algorithms, Machine Learning, Cloud Computing, Object-Oriented programming (OOPs), System Design, Software Development Life Cycle, Full-Stack Development, Data Science & Analysis, Computer Networks.

WORK EXPERIENCE

Software Engineer   Aug 2024 – Present
University of Florida, Gainesville, FL

- Led instruction for 60+ students on **AI** and **Machine Learning** concepts using environmental datasets, emphasizing pre-processing and feature engineering in **Python** (NumPy, Pandas) to ensure high-quality inputs for modeling.
- Facilitated lab sessions in **Python** (scikit-learn) to demonstrate classification and regression algorithms, boosting prediction accuracy by 77% and reducing false positives by 26% through effective feature engineering and hyperparameter tuning.
- Incorporated **prompt engineering** with **LLMs** to assist colleagues extract insights from data, streamlining workflows by 40%.
- Developed interactive visualizations in **Python** (Matplotlib, Seaborn) and **Tableau** to reveal hidden patterns, enabling real-time trend analysis and driving an 85% improvement in data-driven decision-making accuracy.

Software Engineer – Full Stack Developer   Jan 2025 – May 2025
Arrow North Design, Raleigh, NC

- Designed a scalable full-stack web application using **Next.js**, **TypeScript**, and **Tailwind CSS** for responsive styling, optimizing state management and implementing **OAuth/JWT** flows, resulting in a 30% performance increase.
- Architected cloud-native applications with **Firebase (OAuth)** for secure authentication, enhanced **UI/UX** performance via **Google Cloud Platform** services and achieved 25% faster load times with seamless **Vercel** deployments.
- Integrated **RESTful APIs** in **Python (Flask)** by implementing **microservices**-based architecture with efficient API routing and refined **NoSQL** queries through proper indexing, reducing query latency by 40% and delivering scalable **backend** services.
- Automated **CI/CD** pipelines using **GitHub** Actions and **Docker** for consistent, scalable builds and enforced code quality via ESLint and unit testing, cutting deployment errors by 75% and accelerating product release cycles.

Software Engineer – Full Stack Developer   Apr 2021 – Jul 2023
TCS, Bangalore, India

- Spearheaded functional, UAT, and QA testing for 10+ enterprise apps using **HP ALM** for defect tracking and **AWS CloudWatch** for log monitoring, achieving 98% defect coverage and improving release quality to over 90%.
- Enhanced **UI/UX** design with **React Hooks** for state management, reducing production issues by 30% and leveraged **TypeScript** for static typing and **AngularJS**, enabling 40% faster issue resolution.
- Developed data validation logic and **backend** applications in **Node.js (Express.js)**, integrated **REST APIs** via **Python (Django)** for scalable endpoints, and optimized **MySQL/PostgreSQL** queries to boost performance by 45%.
- Led agile teams to increase project efficiency by 80% through **Jira** for task tracking, **Confluence** for knowledge sharing, and **ServiceNow/MS Excel** for workflow documentation, increasing stakeholder satisfaction by 97%.

PROJECTS

Agentic AI Systems | MindStudio, n8n, RAG, LLMs, Automation   Jul 2025 – Aug 2025
- Built automated **AI agents** on the MindStudio platform, automating workflows and cutting manual tasks by 45%.
- Refined **Prompt Engineering** capabilities to increase task efficiency by 60%, delivering scalable, production-ready solutions.

Cat Fact Tracker | Python, Next.js, TypeScript, RESTful API, SQL, Git   Jun 2025 – Jul 2025
- Redesigned a fully functional animal fact tracker app with **Next.js**, **TypeScript**, and **API** integrations, attracting 10,000+ active users.
- Integrated an external API with 98% uptime handling 500+ requests per minute via **Python FastAPI** to deliver real-time cat facts.

Automated Text Censoring | Python, PyTest, Git, CI/CD, Power BI, Transformers   Aug 2024 – Dec 2024
- Orchestrated **NLP** and **ETL** pipelines, improving processing accuracy by 30% through advanced pre-processing, including **Regex**.
- Established **Git** workflow and reporting pipelines, reducing manual effort by 40% and accelerating **CI/CD** execution by 25%.

SKILLS

Languages and Databases: Python, Java, C/C++, HTML5, CSS, JavaScript, R, Golang, SQL, NoSQL, Snowflake, MongoDB, Netezza
Frameworks and Technologies: ReactJS, NextJS, AngularJS, NodeJS, Spring Boot, TensorFlow, PyTorch, Kafka, Spark, Linux, Unix
Developer and Cloud Tools: AWS, Azure, GCP, Docker, Kubernetes, Git, GitHub, VSCode, ServiceNow, Vercel, Firebase, HP ALM
Analytics and Agile Tools: Pandas, NumPy, scikit-learn, Tableau, Power BI, MS Excel, Jira, Confluence, Agile