

Sai Prathek Kotha

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EDUCATION

GITAM University

Bachelor of Engineering, Computer Science, **GPA: 9.25/10**

Visakhapatnam, India

2019 – 2022

Relevant Coursework: Artificial Intelligence, Machine Learning, Neural Networks and Deep Learning, Natural Language Processing.

WORK EXPERIENCE

Infosec K2K

Hyderabad, India

Data Scientist, AI Research and Innovation Lab

Jan, 2025 – Present

- Worked in Infosec K2K's internal AI research and innovation lab, solving problems in cybersecurity, IAM, and OSINT through applied AI, impacting the entire sales and cybersecurity team.
- Implemented an IAM posture assessment tool that ingested data from Active Directory, Entra ID, and CyberArk, with outputs mapped to MITRE ATT&CK and the Cyber Kill Chain to highlight misconfigurations and improve audit readiness.
- Developed and deployed defensive AI modules and OSINT dashboards, including anomaly detection for adversarial ML risks and real-time aggregation of Qualys, Shodan, DeHashed, HIBP, and internal logs into actionable security insights.

State Street Corporation

Hyderabad, India

Senior Associate, Automation and AI

Jun, 2023– Dec, 2024

- Built a Text-to-SQL-to-Dashboard system, adopted across 3 business teams within State Street, reducing reporting time from 1–2 days to just minutes and serving 80+ users.
- Delivered a document extraction platform leveraging Azure Document Intelligence to process US financial documents (invoices, K-1 forms, financial statements), achieving extraction accuracy of 85% and reducing processing time by 50+ hours per week.
- Deployed an internal ChatGPT-style assistant using a fine-tuned GPT-3.5 model on Azure, integrated with enterprise knowledge, enabling teams at State Street to search project information more efficiently.

State Street Corporation

Hyderabad, India

Intern, Automation and AI

January 2023– July 2023

- Implemented advanced RAG techniques with custom Python scripts to parse complex PDFs and Word documents with intricate tables, chunking content for efficient storage in a vector database.
 - Applied ML models in a deduplication project to detect anomalies, improving data quality and reducing duplicate records by 40%.
 - Designed REST APIs that supported over a hundred users and integrated Snowflake cache ID methods, reducing backend processing time in the Snowflake step from over a minute to under a second.
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ACADEMIC PROJECTS

Mental Health Assistant (MIRA)

Aug, 2024

- Fine-tuned Meta-LLaMA-3.1-8B on an 8.4M+ token therapist-patient dataset using Unsloth AI, improving empathy, tone, and contextual understanding in conversations.
- Open-sourced and deployed MIRA on Hugging Face, enabling community access, collaboration, and research in AI-driven mental health support.

Voice-Controlled Game with Speech Recognition

Oct, 2022

- Trained a deep learning model (TensorFlow/Keras) on 4,000 samples from Google's Mini Speech Commands dataset, achieving 92% classification accuracy.
 - Integrated the model into a real-time Pygame application, enabling voice-controlled gameplay with command recognition latency of less than 100 ms.
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PUBLICATION

- *An Experimental Study on Denoising the Images with Autoencoders* – Published in the 6th International Conference on Communications and Cyber Physical Engineering (ICCCE 2024).
 - *T2I-RISE - A Comprehensive Approach with Conversational Context and Feedback Systems* – Presented at 2024 IEEE International Conference on Big Data (BigData).
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LEADERSHIP EXPERIENCE

State Street Corporation

Hyderabad, India

Senior Associate, Automation and AI

June 2023– December 2024

- Led a team of 4 members to secure 7th position in the International AI Hackathon, competing against more than 100 teams globally.
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AWARDS AND ACHIEVEMENTS

- Secured a Top 10 finish in State Street Hackathon 2023 among 100-plus teams.
 - Recognized for fast turnaround on Alpha Copilot Text-SQL project, saving 80 hours/week of analyst work.
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SKILLS AND INTERESTS

Technical Skills: Python, C, Generative AI, Machine Learning, NLP, Computer Vision, LLMs, Prompt Engineering, RAG, PyTorch, Scikit-Learn, Langchain, MLflow, Streamlit, FastAPI, REST APIs, Azure, Docker, MySQL, Snowflake, PostgreSQL, Git/GitHub

Other Skills: AI Research & Development, End-to-End Project Delivery, Complex Problem Solving, Cybersecurity, Mental Health AI