Sai Manoj Kartala

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PROFESSIONAL SUMMARY

Versatile AI & Full-Stack Developer with hands-on experience in building scalable web platforms and deploying end-to-end machine learning solutions. Proven ability to integrate NLP, computer vision, and AR technologies across education, healthcare, and productivity domains. Skilled in Python, MERN, TensorFlow, and AWS with a track record of automating workflows and reducing decision-making time by 30%. Passionate about transforming real-world problems into intuitive, user-driven applications.

TECHNICAL SKILLS

Languages: Python, C, Java, SQL, JavaScript
AI/ML: TensorFlow, Hugging Face, OpenCV, LangChain, FAISS, ChromaDB
Full-Stack: MERN Stack, FastAPI, Flask, Node.js, Prisma ORM
Cloud/DevOps: AWS (Lambda, SageMaker, EC2, S3, RDS), Docker, Kubernetes, CI/CD Pipelines
Databases: PostgreSQL, MongoDB, Snowflake, Redis, Power BI, Tableau,SQL
Software Engg.: API Development, System Design, AI Model Deployment
UI/UX: Figma, Wireframing, Gradio
Tools/Frameworks: Unity, Blender, Mux, Git, GitHub Actions, Postman, Jupyter

EDUCATION

M.S. in Computer Science, SUNY Albany, NY - GPA: 3.49   2024-2025
Relevant Courses: AI, ML, OS, Data Structures, Databases, Software Engg.
B.Tech in Computer Science, GITAM University, India - CGPA: 3.65   2019-2023

PROFESSIONAL EXPERIENCE

Augmented Reality Research Assistant   Siena College (Remote) — Apr 2025 – Present

- Assisting Dr. Michele McColgan in developing AR applications to visualize 2D physics concepts in 3D space using Unity and Blender.
- Built the startup's website and developed a Unity-based mobile app with custom 3D models for interactive STEM learning modules.

Data Structures Grader   SUNY Albany, NY — Sep 2024 – Present

- Evaluated assignments for 50+ students weekly, ensuring 99% grading accuracy.
- Automated grading workflows using Python, reducing manual effort by 10+ hrs/month.

Machine Learning Intern   Phoenix Global, Remote — Jun 2021 – Aug 2021

- Developed TensorFlow CNN models, improving accuracy by 15% for large datasets.
- Designed scalable AI pipelines, processing 10K+ clinical samples monthly.
- Reduced false-positive rates in healthcare AI predictions by 20%.

Lab Assistant, Computer Graphics   GITAM University, India — Jan 2020 – Jun 2021

- Led 50+ lab sessions on OpenGL-based interactive computing and 3D rendering.
- Provided technical mentorship, increasing student project success rates by 25%.

PROJECTS

AI-Powered Course Management Platform (Full-Stack & AI/ML)

- Developed a university learning platform using Next.js, Node.js, Prisma ORM.
- Integrated AI grading assistant (GPT-4, BERT), aiding student debugging.
- Implemented AI lecture analytics via Mux, tracking engagement in real-time.

WearMe - AI Outfit Recommendation App (AI/ML & Full-Stack)

- Built AI-based styling assistant recommending weather-appropriate outfits.
- Integrated computer vision for fabric, color, and occasion-based outfit matching.
- Used MERN stack, FastAPI, TensorFlow with a wardrobe management dashboard.

DocP - AI Document Parsing & Extraction (OCR + NLP + Data Engineering)

- Developed smart document parser using OCR and NLP, improving data accuracy by 20%.
- Designed interactive AI-powered dashboards, reducing decision-making time by 30%.
- Recognized as Best Project at University Showcase for workflow automation.