Putchakatla Jeevan Kiran

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PROFILE

Computer Science student specializing in Artificial Intelligence and Machine Learning. Skilled in problem-solving with a strong foundation in Data Structures and Algorithms. Passionate about building innovative, impactful solutions and collaborating effectively in teams.

TECHNICAL SKILLS

Programming Languages: Java, Python, C, C++, SQL

Web Technologies: HTML, CSS, JavaScript, React.js, Node.js, Express.js

Databases & Storage: MySQL, MongoDB, ChromaDB

Machine Learning & AI: Scikit-learn, TensorFlow, OpenCV, LangChain, Pandas, NumPy, Generative AI, Retrieval-Augmented Generation (RAG)

Software Design & Core Concepts: Data Structures and Algorithms, Object-Oriented Programming (OOP), Software Development Life Cycle (SDLC), Model Communication Protocol (MCP), RESTful API Design

Developer Tools & Platforms: Git, GitHub, Docker, Postman, VS Code, Streamlit, Jupyter Notebook

EXPERIENCE

Full Stack Web Development Intern at Prodigy Infotech

Developed full-stack web applications using the MERN stack with hands-on experience in React, Node.js, Express, and MongoDB. Built responsive UI components with Zustand, integrated REST APIs using Axios, and implemented authentication and real-time features. Collaborated in an Agile team using Git, enhancing problem-solving and version control skills.

PROJECTS

Agentic RAG Chatbot – Multi-Format Document QA with MCP

Built an agent-based RAG chatbot for multi-format document QA using modular agents coordinated via Model Communication Protocol (MCP). Integrated ChromaDB with MiniLM for semantic search and Gemini LLM for context-aware answers. Developed an interactive Streamlit interface for file upload and live chat.
Tools: *Python, Gemini LLM, ChromaDB, Sentence Transformers, MCP, Streamlit*

Advanced Collision Detection for Smart City using Deep Learning

Built a system using YOLOv8, DeepSORT, and Optical Flow to detect vehicle collisions in real time. Used a ResNet-based CNN with transfer learning to validate detected events and reduce false positives. Tested on recorded and simulated traffic videos with strong real-time performance.
Tools: *Python, YOLOv8, DeepSORT, ResNet (Transfer Learning), OpenCV, PyTorch*

EDUCATION

B.Tech in Computer Science — 2025
Vignan Institute of Technology and Science — GPA: 7.4/10

Intermediate (MPC) — 2021
Narayana Group of Institutions — GPA: 9.2/10

SSC — 2019
Mother Teresa Grammar High School — GPA: 8.7/10

CERTIFICATIONS

Supervised Machine Learning (Stanford University):

Java Programming (Oracle Academy):

Scientific Computing with Python (FreeCodeCamp):

Conference Publication

Advanced Collision Detection for Smart City using Deep Learning
Presented at the 3rd International Conference on Self Sustainable Artificial Intelligence Systems (ICSSAS 2025),
M. P. Nachimuthu M. Jaganathan Engineering College, Chennimalai, Erode, India.
June 11–13, 2025. Published under IEEE.

Co-Curricular Activities

Hack The Verse - Hackathon
Participated in a national-level hackathon and developed an efficient hospital management system. Explored real-world challenges and collaborated with a team to build a functional web-based solution.

Java Programming Workshop
Attended a practical workshop on Java programming and built mini-projects to reinforce learning. Gained hands-on experience with IDEs, debugging, and object-oriented design principles.