

# MANTHON MITTAL

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## PROFILE

MSc Artificial Intelligence graduate with a background in IT and practical experience in robotics simulation and full-stack development. I am currently building predictive models for business data and working as a freelance developer. Skilled in Python, C++, and cloud infrastructure, with a focus on creating working, scalable solutions.

## TECHNICAL SKILLS

- Robotics & Simulation:** ROS2, Gazebo, TurtleBot, LIDAR Integration, PID Control, Fuzzy Logic.
- AI & Machine Learning:** TensorFlow, PyTorch, Scikit-learn, Neural Networks (CNN/RNN/GNN), LLMs, RAG.
- Languages:** Python (Advanced), C++, JavaScript, Java, SQL.
- Frameworks:** React, Node.js, Express.js.
- Cloud & Databases:** Oracle OCI, AWS, Firebase, MongoDB, SQLite.

## EXPERIENCE

<b>KM Steel</b> <i>AI &amp; Data Analytics</i>	Remote (UK/India) Dec 2024 – Present
• Cleaning and processing large datasets to improve reporting accuracy for an international client.	
• Building predictive models using Python (Scikit-learn, Pandas) to forecast sales and track performance.	
• Creating interactive dashboards to help management visualize KPIs and make quicker decisions.	
• Collaborating directly with the operations team to fit these data insights into their daily workflow.	
<b>Freelance Developer</b> <i>Full-Stack &amp; Automation Developer</i>	Remote 2019 – Present
• Delivering custom web solutions for clients, including a full-stack e-commerce platform for Indian Sarees.	
• Building automation scripts (Web Task Autopilot) using Selenium to handle form-filling and data extraction.	
• Managing the full project lifecycle from gathering client requirements to final deployment and hosting.	
<b>Silver Touch Technologies Ltd.</b> <i>Android Development Intern</i>	Ahmedabad, India Jan 2022 – Apr 2022
• Developed a real-time chat app using the Android SDK and Java.	
• Built the backend with Firebase and Express.js to handle message transmission and user login.	
• Fixed bugs related to real-time database synchronization across different devices.	
<b>CAD DESK</b> <i>Python Programming Intern</i>	Jaipur, India June 2021 – July 2021
• Completed training on Python core methodologies and delivered small automation projects on deadline.	

## PROJECTS

<b>Autonomous Robot Navigation System   ROS2, Gazebo, C++, Fuzzy Logic</b>	
• Built a wall-following robot simulation using LIDAR data and a PID controller.	
• Implemented a Fuzzy Logic system to detect obstacles and adjust velocity in real-time.	
• Designed a hybrid architecture that switches behaviors based on environment thresholds.	
<b>DocInsight: Retrieval Q&amp;A Engine (RAG)   LLMs, Vector DB</b>	
• Created a RAG system to query unstructured PDF documents with context filtering to ensure accuracy.	
<b>Rossmann Store Sales Forecasting   TensorFlow, XGBoost</b>	
• Processed over 1 million sales records for 1,115 stores.	
• Compared XGBoost against Deep Learning models (LSTM, RNN) to capture time-based trends.	
• Tuned the model to minimize RMSPE (Root Mean Square Percentage Error) for seasonal data.	
<b>Narrative-to-Clip Generator   Python, PyTorch, Transformers</b>	
• Built a diffusion-based system to generate short video clips directly from text prompts.	

## EDUCATION

<b>University of Essex</b> MSc in Artificial Intelligence	United Kingdom Oct 2023 – Oct 2024
<b>Ahmedabad Institute of Technology</b> Bachelor of Engineering in Information Technology	Gujarat, India 2018 – 2022

## CERTIFICATIONS

- Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate
- Programming with Python and IoT Perspective – Panjab University (2021)