Prajal Jain

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EDUCATION

Vishwakarma University, Pune, India **Jul 2027**
Bachelor's in Technology, Artificial Intelligence

Indo German Tool Room, Aurangabad, India **Jul 2024**
Diploma in Mechatronics **GPA:7.9**

SKILLS

Mechatronics & Robotics	Raspberry Pi, Robotics Systems, Embedded Systems, Arduino, ROS, Sensor Integration (IMU, GPS), PLC, SCADA, Path Planning, SLAM
AI & Machine Learning	Neural Networks, Deep Learning, TensorFlow, OpenCV, Scikit-learn, Model Evaluation, Computer Vision, YOLO, Reinforcement Learning
Programming Languages	Python, C++, MATLAB, SQL, Bash/Shell Scripting, Java
Design & Simulation Tools	SolidWorks, MATLAB/Simulink, TIA Portal V13, Fusion 360,
Development Tools & Platforms	IntelliJ IDEA, Visual Studio Code, Google Colab, GitHub, Arduino IDE, Raspberry Pi OS/Linux
Databases & Data Pipelines	MySQL, PostgreSQL, MongoDB, Apache Airflow, Apache Kafka, ETL/ELT Pipelines, Data Cleaning Processing
Soft Skills	Analytical Thinking, Problem Solving, Team Collaboration, Communication, Adaptability, Project Ownership, Time Management, Quick Learning
Certifications	Neural Networks and Deep Learning, Improving Deep Neural Networks, AI For Everyone, Structuring Machine Learning Projects, SQL for Data Science, Linux & Shell Scripting

ACADEMIC PROJECTS

Artificial Intelligence Video Classifier Recycle Bin **Jan 2024 - May 2024**

- Developed an **AI-based video classification system** to sort biomedical waste from live footage
- Used **image processing and machine learning** techniques to classify waste into the correct categories
- Integrated the classifier into **a smart disposal unit** to improve sorting automation
- Achieved **94% accuracy**, reducing false discards and improving safety
- Contributed to safer biomedical waste management through **intelligent automation**

Arduino-Powered Drone **Jul 2022 - Nov 2022**

- Designed and assembled **a custom quadcopter** using **Arduino** and **IMU sensors**
- Programmed **motor control**, **flight stabilization**, and remote navigation using **C/C++**
- Implemented **GPS-based return-to-origin** feature for low battery failsafe
- Supported both **manual and semi-autonomous flight modes** with safety features
- Enhanced reliability with **real-time sensor integration** and emergency override logic

AI Cyber Coach **Jan 2025 - May 2025**

- Built an **AI-powered learning assistant** with a chatbot for solving student queries
- Developed real-time interaction using **Python**, **SQL**, and **NoSQL** databases
- Managed users, admins, and content through dynamic **database architecture**
- Delivered **personalized learning experiences** and tracked performance metrics
- Enabled mentor dashboards for **engagement analytics** and content flow control