Agam Singh Saini

EDUCATION

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Masters in Data Science for Innovation

University of Technology Sydney, Sydney.

B.E. in Mechatronics Engineering; CGPA: 8.77

Thapar Institute of Engineering and Technology, Patiala.

10 + 2: Percentage: 86.2. || 10: Percentage: 84.4

Ryan International School, Chandigarh, Chandigarh.

Work Experience

Maruti Suzuki India Limited

Gurugram, Haryana, India

Jun 2024 - Jan 2025

Graduate Engineering Trainee R&D Full Time

- Developed an interactive Power BI dashboard to analyze brake and suspension performance metrics, streamlining issue identification and resolution within the workflow. Collaborated with cross-functional engineering teams to ensure data accuracy, contributing to measurable improvements in vehicle dynamics and component reliability.
- Leveraged data visualization techniques to pinpoint critical performance issues in brake and suspension systems, driving measurable enhancements in vehicle dynamics and component reliability.

CVRDE DRDO

Avadi, Chennai, India

Jan 2023 - June 2023

- Robotics Engineering $R \mathcal{E}D$ Intern
 - Researched, designed, and simulated advanced MAV components, robotic arms and indexing mechanisms using PTC Creo, Solidworks, and Gazebo. Implemented object detection (person), wall avoidance, for tanks through ROS2. Successfully showcased possible solution with robotics
 - Project showcased MAV technology exploration, robotic arm design, tank automation, and wireless control, leading to practical simulations demonstrating autonomous capabilities and advanced robotic functionalities. Successfully evaluated the performance of the autonomous system.

Spectrum Technology

Ambala, Haryana, India

Mechatronics Engineering Intern

June 2023 - Aug 2023

 Utilizing LabVIEW in conjunction with VISA, an integration framework, syncing an Arduino Uno, a temperature sensor, and an LCD screen. The system not only monitored dangerous machine temperature thresholds but also persisted the count of threshold breaches even across Arduino power reboots, exemplifying seamless data continuity and synergy across hardware components.

Projects

PCOS Detection Using Machine Learning Methods Research Project: | Link

• Developed predictive models for Polycystic Ovary Syndrome (PCOS) detection using clinical and lifestyle data, optimizing feature selection and classification performance achieving 89 percent recall for True PCOS, ensuring robust generalization. Tech: Python, Scikit-Learn, Data Analytics. (May '25)

Emerging patterns in Youtube Videos: | Link

• Data cleaning and advanced analysis, revealing trends for strategic decision-making and optimizing content strategy. -Data driven insights for best content creation to gain a competitive edge. Tech: Data Analytics, Python. (January '21)

Emerging trends in Cloth Retails: | Link

• Data cleaning and advanced analysis, revealing trends for strategic demand and supply optimizing to opt best strategy.
-Data driven insights for market demands to gain a competitive edge. Tech: Data Analytics, Python. (January '21)

SKILLS

Programming: Python, C++, C, SQL

Technologies: Power BI (including DAX), Git, SQL, Dbeaver, Docker, MS Excel, MS Word, MS PowerPoint, MS Office Suite. Core Competencies: Machine Learning, Deep Learning, Data Analytics, Data Visualization, Image Processing, Big Data, Exploratory Data Analysis (EDA), ETL Pipelines.

Soft Skills: Project Management, Teamwork, Leadership, Critical Thinking, Problem Solving, Communication, Presentation.

CERTIFICATES

Data Camp: Data Scientist

NPTEL: Data Analytics with Python, Introduction to Machine Learning, Programming, Data Structures And Algorithms Using Python.

Coursera: What is Data Science, Tools for Data Science, Data Science Methodology, Introduction to Data Science in Python, Databases and SQL for Data Science with Python, Specialization-Introduction to Data Science.

EXTRA CURRICULAR ACTIVITIES

NCC: National Cadet Corps Airwing Thapar Institute of Engineering and Technology (Discipline, Leadership, comradeship, Communication) (April '21 - June '24)

NSS: National Social Sevices Thapar Institute of Engineering and Technology (Community services, Organising camps, leadership)(April '21 - June '24)

Core of Thapar Adventure Club: Conducted and Managed Trips, Treks, events, and fests for Thapar students. (Management, Documentation, Event management, Crowd handling)(Jan 2020 - June '24)

Core at Mechtronics and Robotics Society Patiala, India: Society Technical Lead, Conducted workshops and delivered workshops reaching over 2000 Students. (Robotics, Ai, Computer vision) (Jan 2020 - Present)