

Dhruv Raj Patel

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Focused and driven sophomore at Purdue University. Eager to grow through hands-on experience and collaboration, with a strong passion for coding and problem-solving. Skilled in collaboration, communication and analysis.

EDUCATION

Purdue University, College of Science
Bachelor of Science, Computer Science

Indianapolis, IN
Class of 2028

PROFESSIONAL EXPERIENCE

The Data Mine (Allison Transmission (warranty correlation))– Purdue University
Undergraduate Data Science Researcher

West Lafayette, IN
Jan 2025 – May 2025

- Collaborating with a team of 4 students for **Allison transmission** and working on warranty claim correlation.
- Developing a full stacked executable web-based application coded in **Python** using Streamlit package.
- Employing advanced data analytics to find statistical trends and improve claims processing.

The Data Mine (Allison Transmission (vehicle clustering model))– Purdue University
Undergraduate Data Science Researcher

West Lafayette, IN
Aug 2024 – Dec 2024

- Collaborated with a team of 9 students to develop a vehicle clustering model for **Allison Transmission**.
- Became proficient in **Python** / Geospatial packages (MovingPandas, OpenStreetMap, NetworkX) with regards to **ML**.
- Conducted data analysis, feature engineering, and model interpretation to enhance predictive accuracy.
- Independently developed an iterative script to detect and handle all the common outliers in the datasets, improving clustering model more accuracy.

Galamad Aerospace (Singapore)
Space Research Internship

Singapore(remote)
Sept 2023 – Nov 2023

- Worked under the CTO to design, code, and research solar capabilities for a new satellite.
- Applied **Python (Anaconda)** and **LaTeX** for research documentation and technical analysis.
- Designed folding mechanisms for solar panels, optimizing energy efficiency and minimizing structural volume.
- Created detailed Overleaf reports with comprehensive references to enhance research validity.

Oculotronics Technology Private Limited
Web Development Intern

Hyderabad, India
May 2023 – June 2023

- Developed a new real-time back end by using MySQL(data management system), increasing firm efficiency and security.
- Gained hands-on experience in **PHP, Java, and SQL**, enhancing backend operations and scalability.
- Strengthened team communication and contributed to a streamlined development cycle.

PROJECTS

- **Social Media Platform (Java)**
 - Collaborated with a team of 4 members to develop a comprehensive social media application based on **Java**.
 - Independently designed and managed the backend database using **SQLite** to ensure secure and efficient data handling.
 - Created detailed data flow diagrams to document system architecture and interactions
 - Implemented core functionalities such as user authentication, message exchange, and attachment management.
 - Designed an intuitive user interface with Swing, integrating features like user profiles, search, and real-time message updates.
 - Authored project documentation and contributed to preparing a video presentation to showcase the platform's features and functionality.

LEADERSHIP AND INVOLVEMENT

- **Semifinalist in All India Melbourne competition,**
 - Led a team in an All India case competition, proposing a digital marketing startup, ranked **top 24** out of 250+ teams.
- **Leading Cadet :Sea Cadet Corps India:**
 - Trained as a seaman for the **Indian Navy**, leading a contingent of cadets, demonstrating strong discipline and leadership.
- **Best delegate** (model united nations), Good Shepherd International School:
 - Been part of the DISEC committee in MUN, assigned as the delegate of USA, recognized as the **Best Delegate** of the committee.

COMMUNITY SERVICE/VOLUNTEERISM

- **Co-Founded social-work foundation, web development, Vijayalakshmi Foundation:**
 - Successfully **Co- Founded a social-work foundation**, handling **technology** for the foundation including the development of website and managing all the internal data of the foundation.
 - The foundation is committed to helping the youth with education and proper healthcare, volunteers have had trips in rural areas in TamilNadu (India)to upgrade health care/ and educate rural/ tribal people.