Aditya Tipre

US Citizen | [Email](#) | [LinkedIn](#) | [GitHub](#)

EDUCATION

Purdue University   West Lafayette, IN
B.S in Computer Engineering, Concentration in AI/ML   *Aug. 2023 – May 2027*

Relevant Coursework: Data Structures and Algorithms, Object Oriented Programming (Java), Python for Data Science, Advanced C Programming, Digital Systems, Multivariate Calculus, Linear Algebra, Real Analysis

TECHNICAL SKILLS

Languages: Python, Java, C/C++, JavaScript/Typescript, HTML/CSS(Tailwind), SQL + Postgres
Frameworks: React, Node.js, FastAPI, Vercel, Firebase, GraphQL
Developer Tools: Git, Docker, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, DeepSeek Reasoner, Hugging Face, OpenAI API
Libraries: Pandas, GeoPandas, PyTorch, OpenCV, Matplotlib, MongoDB, Redis, Open-LlamA

EXPERIENCE

Incoming Software Engineer Intern   June 2025 - August 2025
Pharmesol Inc.   *New York, New York*

Undergraduate Data Science Researcher   Jan. 2025 – May 2025
Purdue Data Mine   *West Lafayette, IN*
- Utilized **PyTorch** and **Yolo V8** to train a weed localization and segmentation neural network, resulting in a 387% increase in detections, from 15 to 73 on average.
- Deployed models on **AWS SageMaker**, building scalable data processing and visualization pipelines for large datasets of UAV imagery.
- Streamlined image analysis workflows and improved image monitoring accuracy by integrating **OpenCV**

Software Engineer Intern   June 2024 - August 2024
Optimal Strategix Group   *Remote*
- Developed a comprehensive web scraping pipeline using **Beautiful Soup** and **Selenium** to extract reviews and discussions from medical forums, Reddit, review sites
- Designed and implemented a robust data pipeline in **MongoDB** for collecting, cleaning, and storing scraped data, reducing loading time by **5%**
- Leveraged **Open-Llama** for Named Entity Recognition to extract domain-specific entities and applied sentiment analysis at both sentence and aspect levels using **Hugging Face**.

Backend Developer   August 2023 - May 2024
Purdue Space Program   *West Lafayette*
- Developed a **React** component to integrate real-time data updates with a WebSocket server.
- Established a WebSocket connection to receive data, parsed JSON messages, and triggered listeners based on unique identifiers.
- Optimized real-time data handling with **React.js** and **TypeScript**, streamlined configurations, and enhanced communication between rocket components, increasing system efficiency by **3%**

PROJECTS

Personal Website: | *React.js, Three.js, TypeScript, HTML, TailWind CSS*   Dec. 2024 – Jan. 2025
- Developed a personal website using **React**, **Three.js**, **TypeScript**, **HTML**, and **Tailwind CSS**.
- Implemented dynamic 3D visualizations using **Three.js** to enhance user interactivity and visual appeal.
- Implemented Google Tag Manager to track website performance and gather insights on user interactions, optimizing site content based on analytics data.

Marketplace | *Java*   Nov. 2023 – Dec. 2025
- Utilized object-oriented concepts and concurrency to build a marketplace application for merchants and buyers. Facilitated the creation of white labelled stores and customer support communications.
- Used File reading techniques to utilize CSV files to be utilized by sellers to both import and export products
- Enabled CRUD operations for merchants on their respective products.