

SANDEEP BALABANTARAY

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Education

VIT Bhopal University

Bachelor's in Computer Science and Engineering (B.Tech)

CGPA : 8.58

2022 - 2026

Experience

AlgoUniversity (YC S21)

May 2025 - Present

SWE Co-Op Intern

Remote

- Architected Codeblaze, an online judge platform for 500+ active users, featuring a self-built Docker-based compiler and a React + Tailwind interface with custom dashboards and an admin console for live coding.
- Scaled backend in Django/DRF with Docker-sandboxed judging and SQLite, handling 10K+ submissions/day.
- Deployed AWS EC2 with Nginx & SSL, integrating Docker workers & Vercel frontend, ensuring 99.9% uptime
- Built Ember, an AI coding assistant using Google Gemini for code analysis, test evaluation, and intelligent hints
- [Deployment Link](#) [Video Link](#)

Madhya Pradesh Police

Dec 2024 - March 2025

Frontend Web Developer & Database Manager Intern

Bhopal, Madhya Pradesh

- Digitalized 50+ manual police forms into a web system using React and Flask, reducing paperwork by 70%.
- Crafted a user-friendly interface reducing form processing time by 50% and enabling seamless data analysis and entry.
- Automated database operations and Excel extraction workflows, cutting data retrieval time by 60%.

Projects : <https://github.com/AxilBlaze>

Walmart AI Shopping Assistant | Machine Learning, Flask, GenAI (Gemini)

June 2025 - July 2025

- Designed a recommendation microservice with Apriori & FP-Growth, improving bundle suggestion accuracy by 20% and boosting add-to-cart conversion by 15% in trials prompting users to add more items and hence boosting sales.
- Integrated React frontend and Chrome Extension with a Flask + Gemini 2.0 (Flash) API and OCR for grocery list parsing, achieving 95%+ accuracy across text, voice, and image inputs with <2s latency.
- [Deployed Link](#) [Video Link](#)

Course Finder | Machine Learning, Flask, NLTK, HTML, CSS, JS

Feb 2024 - May 2024

- Implemented an SVD-based recommendation engine for 1000+ courses, improving course match accuracy by 30% and helping in providing a personalized and efficient learning experience.
- Developed a sentiment analysis pipeline that analyzed 2,000+ reviews for adaptive learning, yielding valuable insights into student satisfaction, ultimately guiding curriculum adjustments and enhancing the overall educational experience.
- [Deployed Link](#) [GitHub Link](#)

Medipred | Machine Learning, Flask

Aug 2023 - Dec 2023

- Aggregated datasets from multiple structured and unstructured datasets and preprocessed 10M+ raw data records.
- Enhanced ML performance by 25% through handling missing values, outliers, and robust normalization techniques.
- Trained & validated ML models achieving 90%+ accuracy across 5,000+ diverse healthcare records of multiple diseases
- [Video Link](#) [GitHub Link](#)

Technical Skills

Programming Languages: Python, C++, HTML, CSS, Javascript

Frameworks: Flask, Django, Reactjs, Tailwind

Databases: MySQL, PostgreSQL, MongoDB, SQLite

Machine Learning: Scikit-Learn, TensorFlow, Keras, PyTorch, Hugging Face Transformers, LangChain, LangFlow

Specialization: NLP, DL, Computer Vision, Deep Learning, GenAI, Agentic AI System, Data Visualization

Achievements

- AlgoUniversity:** Earned 2nd place out of 1000+ students in a programming camp focused on advanced graph theory
- Coursera:** Stanford University & DeepLearning.AI Machine Learning Specialization.
- LeetCode :** achieved the LeetCode Knight badge with a rating of 1819, ranking in the top 5.3% globally

Co-Curricular

Amdocs Gen AI Hackathon | Semi-Finalist

Nov 2024 - Dec 2024

- Crafted a GenAI tutor using an ensemble of Mistral, GPT-1, and LLaMA with chain-of-thought reasoning, selected from 500+ students for its innovative solution.

Smart India Hackathon | Qualified University Finals

Nov 2023 - Dec 2023

- Advanced through all internal rounds, leading ML model deployment for a healthcare project, ranking among top 20% of 200+ teams.