AMRITANSHU BARPANDA

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Education

National Institute of Technology, Rourkela	**August 2023 – Present**
Bachelor of Technology in Electronics and Instrumentation Engineering (CGPA - 7.74)	*Rourkela, Odisha*

Delhi Public School, Sambalpur	**May 2023**
AISSE – CBSE, Science (PCM) (Percentage - 90%)	*Sambalpur, Odisha*

Delhi Public School, Rourkela	**May 2021**
AISSE – CBSE (Percentage - 96%)	*Rourkela, Odisha*

Relevant Coursework

- Data Structures and Algorithms
- Object Oriented Programming
- Database Management Systems

Work Experience

Rourkela Steel Plant — **May 2025 – June 2025**
Vocational Trainee — *Certificate*

- Designed and implemented a battery-powered ESP32-S3-based SoftAP module that monitors and transmits temperature and humidity data over Wi-Fi and Ethernet for Electrical Control Rooms at RSP, ensuring real-time environmental monitoring during power outages.

GRID-INDIA — **June 2024 – July 2024**
Summer Intern — *Certificate*

- Developed a program to generate detailed map infographics by processing power plant coordinates, cost per unit, and capacity, enabling clear visualization of energy distribution.
- Conducted performance analysis of Quadratic vs Linear Programming in **Price-Based Economic Dispatch (PBED)** systems; found QP slightly more efficient, but not significantly better to warrant replacing existing LP models.

Projects

Om tours — **March 2025**
Python, HuggingFace, Smolagents, APIs — *Website*

- Developed a full-stack agentic AI system using Smolagents, FastAPI, and React to create personalized travel itineraries through multistep decision-making, covering budget, transport, and schedule, with an interactive frontend for visualization.

Animegen — **February 2025**
Python, NLTK, PyTorch, Tkinter, VectorDB — *GitHub*

- Built an AI tool that converts stories into anime-style visuals by segmenting text into scenes using NLP and Pinecone, then generating images via the TogetherAI API in a Tkinter GUI (30–45s/story, 5–10s/image).

Achievements

- **LeetCode** — **July 2024**
  Secured a global rank of **1306** out of **36,768** participants in Leetcode Weekly Contest 408, showcasing proficiency in DSA and the ability to perform effectively under time pressure. — Profile — Standings

- **Codechef: Two star** — **April 2024**
  Achieved a peak rating of **1528** on CodeChef, earning the title of two-star coder, with experience competing in **35+** contests, showcasing strong algorithmic and programming skills. — Profile

- **Hacktoberfest** — **Oct 2023**
  Contributed 6 pull requests, 4 of which were accepted and merged into open-source repositories, showcasing collaboration skills. — Treenation — Badges— Certificate

Technical Skills

- **Languages**: Python, HTML, CSS, JavaScript, SQL(Structured Query Language), C++
- **Developer Tools**: VS Code, Jupyter Notebook, Google Colab, Spyder, Postman
- **Libraries**: Numpy, Pandas, Matplotlib, PyTorch, Web Scraping (BeautifulSoup)

Certifications

Artificial Intelligence and Robotics — **June 2025 – July 2025**
IIIT, Allahabad — *Certificate*

- Underwent a 6-week training program on AI and Robotics at IIIT Allahabad, gaining practical exposure to machine learning, computer vision, and autonomous robotic systems.