Amlan Anshuman Nayak

Bhubaneswar,Odisha
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Education

Siksha 'O' Anusandhan Deemed to be University,Bhubaneswar **2023 – 2027**
Bachelor of Technology in Computer Science and Engineering (CGPA - 9.78) *Bhubaneswar, India*

Guidance English Medium School **2023**
AISCCE - CBSE, Science (PCM) (Percentage - 79.2%) *Bhubaneswar, India*

Ruchika High School **2021**
CISCE - ICSE (Percentage - 92.5%) *Bhubaneswar, India*

Relevant Coursework

- Data Structures & Algorithms(DSA)
- Machine Learning
- Data Science
- Object Oriented Programming
- Natural Language Processing(NLP)

Projects

Finance Management System | Java, OOP, Data Structures, File and Exception Handling
- Developed a Java-based finance management system to track income, expenses, and budgeting using OOP principles(Encapsulation, Inheritance, Polymorphism) for scalability.
- Implemented efficient transaction management using ArrayList & HashMap for storage, Stack & Queue for undo/redo, and file handling for persistence.
- Integrated exception handling to ensure data integrity and built an interactive console-based interface for seamless financial tracking.

GDP Analysis System | Python3, Pandas, NumPy, Matplotlib, Plotly
- Designed a data-driven system to analyze GDP trends (1960–2018) across 56 countries, handling missing values and ensuring data consistency.
- Computed GDP growth rates and performed Exploratory Data Analysis (EDA) to identify economic patterns and correlations.
- Developed interactive visualizations using Plotly, enabling bulk graph generation and comparative analysis between major economies

Human Activity Recognition Model | Python3,ML,Sklearn,Pandas,NumPy,Matplotlib
- Developed a machine learning model to classify human activities (e.g., Walking, Sitting, Standing) using smartphone sensor data (accelerometer and gyroscope). Implemented data preprocessing, feature engineering, and model tuning to enhance accuracy
- Preprocessed time-series sensor data (3-axial acceleration & angular velocity) using filtering, windowing, and feature extraction techniques.
- Built and optimized multiple ML models (Logistic Regression, Decision Tree, SVM, Random Forest) with Hyperparameter Tuning & Cross-validation for high classification accuracy.
- Performed EDA to detect patterns, remove anomalies, and extract time & frequency domain features for improved model generalization.

Technical Skills

Languages: Python3, Java, SQL
Developer Tools: VS Code,Anaconda, Intellij Idea,Git,Github,Jupyter Notebook
Technologies/Frameworks: NumPy, Pandas, Matplotlib,Sklearn,Plotly

Extracurricular Activities

- **Member, CODEX Club, SOA** (Jan 2025 – Present) – Contributing regularly to the club's **CODEX GitHub repository** by solving and submitting LeetCode problems using Java.
- **Contributor, GirlScript Summer of Code 2025** – Collaborated on open-source projects, strengthening technical skills and community engagement.
- **LeetCode Problem Solver** – Regularly practice DSA with a strong problem-solving mindset.
- **Hackathons & Team Leadership** – Led a team in multiple national-level hackathons, including HackerWars, SIH Internal Hackathon (Top 30), and CraftNCode Finalist, fostering collaboration and strategic problem-solving.