Saumyadip Bandyopadhyay

Kolkata, West Bengal, India

EDUCATION

INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY, SHIBPUR Bachelor's of Technology, 2020-24, CGPA-8.38

SKILLS

Technical Skills Problem Solving/Coding, Data Mining, Machine Learning and Deep Learning, Object Oriented Programming, Database Management System, Data Structures and Algorithms, Technical Presentation, Data Analysis, Engineering Mathematics, Statistics, Finance, Economics, Management

Languages: Python, C/C++,Java,JavaScript, MySQL, HTML/CSS

Software/Tools: VS Code, Jupyter, Git/Github

EXPERIENCE

NNM Labz - Game Development and ML Engineer Intern

June 2023- September 2023

- Developed procedural content generation techniques using ML models (Markov Chain, GANs, VAEs, LSTMs) for game level generation in 2D platformer games.
- Collaborated with designer team to align development with user experience goals and technical needs, presenting ML methodologies to enhance cross-functional understanding of procedural content generation.
- Skills- Python, UnityML,ML,DL

PROJECTS

<u>Man vs Monster</u> ♂ |

- **Description:** Created a 3D game in Python using Pygame with features like raycasting, fish eye effect, pseudo 3D and pathfinding algorithm, demonstrating game mechanics.
- Skills: Python, Pygame, problem-solving, game design

Credit-Risk-Analysis-with-ML-and-Monte-Carlo-Simulations

- Description:Built a credit risk model applying Monte Carlo simulations, Geometric Brownian Motion (GBM), Random Forest, Neural Networks,XGBoost and credit scoring methods like FICO on the Home Credit Default Risk dataset(Kaggle). Conducted EDA to preprocess data, identify key features, and visualize default probabilities and and other distributions. Evaluated models with metrics like ROC-AUC.Deployed an interactive Streamlit app for real-time predictions and visualizations.
- Skills: Risk Modeling, Machine Learning, Deep Learning, Data Visualization, Credit Scoring, Data analysis, Python, tensorflow, keras, scikit-learn, numpy, pandas, matplotlib

Stock price Prediction

- Description: Built a tool to analyze and predict stock trends using deep learning, deployed on Streamlit for real-time interaction.
- Skills: Python, Tensorflow, Keras, Deep Learning, Long Short Term Memory (LSTMs), Time Series Analysis, data analysis

ACHIEVEMENTS and EXTRACURRICULAR ENGAGEMENTS

- Technical Presentation Achievement: Achieved a Grade A in college for Technical Presentation and Seminar, with topics covering Quantum Computing, GenAI, and Renewable Energy.
- Entrepreneurial Engagement: Active member of the Entrepreneurship Development Cell (EDC IIEST) of College; attended multiple webinars and seminars on entrepreneurship, gaining valuable insights and skills.
- Coding:Solved over 500 problems across coding platforms including CodeChef, LeetCode, and Codeforces. Actively participated in various coding contests, achieving a top 10 percent rank in LeetCode Weekly Contest 328.