Sayan Das

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EDUCATION

Jadavpur University	Kolkata, INDIA
Bachelor of Science in Mathematics; Minors in Statistics and Computer Science	*Aug. 2023 – Present*

RELEVANT COURSEWORK

Computer Science 1 (Programming Languages)	Discrete Mathematics
Stats 1 (Probability and Descriptive Stats)	Stats 2 (Distributions and χ^2 test)
Real Analysis	Numerical Analysis
Linear Algebra	Ordinary Differential Equations

EXPERIENCE

Data Science Intern	July 2024 – Oct 2024
IDEAS Technology Innovation Hub, Indian Statistical Institute	*Kolkata, INDIA*

- Developed a machine learning algorithm for identifying optimal trades
- Learnt data analysis, data visualization, Python for data science and machine learning
- Exposed to research methodology, survey and data interpretation

VOLUNTEERING

Content Team Coordinator, Jadavpur University Math Society	Sep. 2024 – Present

ACHIEVEMENTS

Jadavpur University BSc Math Entrance Exam	June 2023

- Ranked 49 out of approximately 2600 candidates

WORKSHOPS ATTENDED

Attended the 2024 CS Theory Winter School, IISc Bangalore	7 – 10 Dec. 2024

- One of only 3 students selected to attend from home institute

PROJECTS

Machine Learning Model for Optimal Stock Trading | *Python, Pandas, NumPy, Scikit*	July 2024 – Oct 2024

- An unsupervised machine learning strategy that identifies when to enter (buy) and exit (sell) trades for optimal profit
- Model trained on historical stock market (S&P 500) data using Yahoo finance API
- K-Means clustering is used to target particular RSI values
- Performs better over longer timeframes such as 20 instead of 10 years
- Portfolio returns outperform the SDPR S&P 500 (SPY) ETF eventually
- Creates around 40% adjusted returns

Gestalt | *SFML, C++, Visual Studio*	July 2023 – July 2023

- A 2D game made for the GMTK 2023 game jam in just 48 hours
- Used Simple and Fast Multimedia Library (SFML) and C++ to program the game
- Implemented 2D game physics

Personal Website | *JavaScript, HTML/CSS, VS Code, Git*	Sep. 2023 – Present

- Persona 5 Royal themed portfolio website
- Site hosted via GitHub Pages

TECHNICAL SKILLS

Languages: C, C++, Python, SQL, R, MATLAB, C#, Java, JavaScript, HTML/CSS
Developer Tools: Make, CMake, Vim, Neovim, Git, PowerBI, VS Code, Visual Studio, IntelliJ, Eclipse, Unity, Unreal
APIs, Frameworks, & Libraries: Pandas, NumPy, Matplotlib, PyTorch, Tensorflow, Scikit, Boost, SFML, OpenGL