Zikora Chinedu

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Education

University of Toronto — Toronto, ON
Bachelor of Science in Computer Science, Minor in Mathematics/Statistics | GPA: 3.8/4.0 — *Sep. 2023 – June 2027*

Experience

Quantitative Finance Analyst — Sept 2024 – Present
Sharpe Financial Research Group — *Toronto, ON*

- Executed **backtesting analysis** across **30** different portfolio combinations of S&P 500 stocks using **Python** and data analysis frameworks such as **Pandas** and **NumPy**.
- Implemented multi-strategy portfolio analysis framework processing **10-stock** portfolios with daily rebalancing, achieving maximum Sharpe ratio of **0.81** and minimizing drawdown to **22.71%**
- Utilize my **programming** and **ML** skills to assist in the construction of advanced financial models and conduction of quantitative research.

Machine Learning Intern — May 2024 – July 2024
Ecobank Transnational Incorporated — *Lagos, Nigeria*

- Leveraged **machine learning models** and conducted extensive **EDA** to develop predictive analytics solutions, including salary prediction and loan default forecasting, enhancing data-driven decision-making.
- Utilized **Python** and **NLP** techniques to develop a framework for the company's chatbot, using **data preprocessing**, **intent recognition**, and **response generation** to enhance user interactions.

Projects

Salary Predictor | *Python, Pandas, Matplotlib, Scikit-learn, NumPy*

- Created a salary predictor that used **exploratory data analysis** and **machine learning algorithms** to predict salaries based on numerical and categorical data.
- Developed custom **Matplotlib** functions to programmatically generate and display graphs, streamlining the data visualization process and eliminating the need for manual data entry.
- Evaluated multiple algorithms and used the best model, **Random Forest Regression**, for predictions.

Loan Default Predictor | *Python, Pandas, Matplotlib, Scikit-learn, NumPy, Seaborn*

- Created a loan default predictor that used **Exploratory Data Analysis** and **Logistic Regression** to predict whether someone would default on a loan or not based on given parameters such as Education, Credit History, etc.
- Preprocessed data by handling missing values, standardizing numerical data, and encoding categorical variables.
- Compared the **Logistic Regression** model against **SVC**, **Random Forest Classifier**, and a **neural network** to ensure robustness
- Used a confusion matrix to check the efficacy of the model.
- Achieved an accuracy of **79%**, a weighted precision of **78%**, and a **weighted recall** of **79%**, and an weighted f1-score of **78%**.

Sokoban Game | *Assembly, RISC-V 32, OOP*

- Used **Assembly** to make a popular game, **Sokoban**, that runs on a **RISC-V 32-bit processor**.
- Implemented **OOP** principles to create a modular and scalable game.
- Supports multiplayer, and displays a leaderboard at the end of the game. Also supports multiple boxes.
- Used the **stack** to store players and their moves, making use of **static memory allocation**.

Paint Application | *Java, JavaFX, OOP, Design Patterns*

- **Worked in a team of 3** in developing a paint application using **Java**
- Used **JavaFX** to handle the **drawing and filling** of shapes, and creating a **user-friendly interface**.
- Utilized the **Factory Design Pattern** to create different shapes, and to keep the code modular and scalable.
- Added **resizing**, **undo/redo** and **background/shape** color changing functionalities.

Technical Skills

Languages: Python, HTML/CSS, Java, C, Assmebly, JavaScript
Developer Tools: Git, VS Code, Visual Studio, PyCharm, JetBrains IDEs, CPUlator
Libraries: pandas, NumPy, Matplotlib, PyTorch, Tensorflow, Transformers, yfinance, Scikit-learn, spaCY, Seaborn, JavaFX