Nathan Kabongo

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EDUCATION

Fordham University May 2024
Bachelor of Science, Computer Science GPA: 3.3/4.0

EXPERIENCE

Data Analyst Intern, Sun River Health June 2023 – Sept 2023

- Developed Python scripts and SQL queries, reducing data consolidation inefficiencies and cutting manual data entry errors by 25%
- Enhanced automated reporting dashboards, leading to a decrease in report generation time, and provided critical insights into medical claims data trends
- Conducted thorough data validation and organization across a multi-source medical database, increasing the accuracy of client data by 20%
- Analyzed gaps in recorded client history on calls with dozens of medical professionals to verify client information, improving data quality and integrity
- Documented data workflows and analysis procedures in Jupyter Notebooks for team collaboration

PROJECTS

Secure Journal Web App

- Designed a full-stack journal web application that incorporated a **React** frontend with component-based architecture, resulting in a responsive web application
- Developed a secure backend with **Django REST framework** and integrated SimpleJWT for secure access token issuance and verification, achieving a robust authentication system
- Deployed the application with **PostgreSQL** on Choreo, ensuring scalable and secure data management, with 99.9% uptime and seamless user data commits

Optimized Memory Manager

- Developed a custom memory manager in **C++** to optimize memory allocation and deallocation processes for high-performance applications
- Integrated a first-fit and best-fit memory allocation strategy to optimize memory usage, assess performance variability, and minimize fragmentation
- Performed extensive profiling and optimization, resulting in a 20% improvement in memory allocation efficiency for high-performance applications

Music Genre Classifier

- Processed and analyzed a dataset of over 50,000 songs using **Python** libraries (Pandas, NumPy), achieving a 76% accuracy in genre classification with XgBoost
- Implemented and compared various decision tree algorithms from Scikit-Learn, enhancing model accuracy by optimizing feature selection
- Evaluated model performance using precision, recall, and feature importance metrics, identifying key factors contributing to classification accuracy

SKILLS

Programming Languages: C++, Python, JavaScript, HTML/CSS, SQL, NoSQL
Frameworks and Databases: React, Node.js, Express.js, PostgreSQL, MongoDB
Developer Tools and Libraries: Git, Visual Studio Code, Jupyter Notebooks