Timothy-Joseph Godwin

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Education

University of Birmingham

Sept 2023 – present

M.Eng Computer Science with Software Engineering | GPA: 3.9/4.25

Birmingham, UK

• Relevant Coursework: Full Stack App Development, Object Oriented Programming, Data Structures & Algorithms, Software Engineering and Professional Practices, Functional Programming, Artificial Intelligence

Kaplan International College, London

Jan – June 2023

Foundation Certificate in Science and Engineering | Average: 85%

London, UK

• Relevant Coursework: Mathematics: 90%, Information Technology: 88%, Extended Project: 72%

Experience

London Success Academy

Sept 2023 - present

Data Engineering Intern

London, UK

- Developed scalable ETL pipeline processing 300K+ records using Python, pandas, and chunked processing, with real-time currency conversion via ExchangeRate API and automated USD enrichment
- Built production-ready data infrastructure on Google Cloud Platform with Parquet columnar storage (80% size reduction), date-based partitioning, and comprehensive logging with retry logic
- Implemented robust data transformation workflows including timezone standardization to UTC, duplicate removal, schema validation, and memory-efficient processing for large datasets (200K+ rows)
- Deployed cloud-native data pipeline with automated GCS authentication, error handling, audit trails, and analytics-optimized storage structure ready for BigQuery integration

Uptrail

July 2025 – Aug 2025

Data Analysis Intern

London, UK

- Cleaned and analysed 2,992 sales records across 499 customers to identify top loyalty tiers and delivery optimisation opportunities (41% delay reduction potential) through 6 data visualisations and strategic analysis
- Built Scikit-learn logistic regression model on 1,494 streaming customers achieving 76.6% accuracy, identifying mobile usage and geographic patterns as key churn drivers for targeted retention strategies
- Designed interactive Tableau dashboard integrating 3 datasets (15,822 records) with 6 calculated KPIs, enabling executive strategic planning through geographic mapping and customer segmentation analysis

Projects

Campus Events Web Application

JHipster, Angular, PostgreSQL

- Developed a full-stack web application for university students to discover and review campus events and societies as part of a 7-member team using Agile methodologies
- Led CI/CD pipeline implementation using Azure for deployment, Docker containerisation, and GitHub Actions runners
- Architected RESTful APIs with Spring Boot and resolved database migration issues using Liquibase

Network Firewall Program

C, Networking, Threading

- Designed multithreaded firewall server using pthreads with mutex synchronisation, supporting concurrent client connections and dual-mode operation (interactive CLI and IPv6 network server)
- Implemented rule management system with linked-list data structures for Add/Delete/List/Check operations on IP range and port range filtering rules
- Engineered advanced IP validation using inet_pton() and network byte order conversions, enabling precise IP range matching and connection acceptance/rejection decisions

Technical Skills

Programming Languages: Python, Java, JavaScript, TypeScript, C, Haskell, PowerShell

Data Analysis & ML: Pandas, Scikit-learn, PyTorch, Tableau, Data Visualisation, Predictive Modeling

Web Technologies: React, Angular, Spring Boot, HTML/CSS, Bootstrap, Express.js, Node.js Databases & Tools: SQL, PostgreSQL, AWS, Docker, Azure, WSL, JHipster, Vercel, GitHub

Additional Information

Languages: English (Fluent), Igbo (Basic), Spanish (Learning)

Achievements: 2023/24 UG Outstanding Achievement Award (SRM Funded); Silver medallist in state-level Physics and Mathematics Olympiads; Top 3 graduating student & Best Student in Further Mathematics (British Spring College)