# 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 2025 – 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)

**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, GCP, AWS, Docker, Azure, WSL, JHipster, Vercel, GitHub, BigQuery

## 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)