# **Andrew Hyde**

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#### **About Me**

Demonstrates a strong passion for problem-solving and technology, Developed a strong interest in cloud computing, specialising in creating efficient, scalable solutions with experience in implementing industry-standard CI/CD pipelines and backend development.

## **Skills**

- Python, Java, JavaScript,
- AWS, Bamboo, Postman, ServiceNow, Docker, Git
- GitHub, GitLab, Jira

## **Experience**

June 2023 - August 2024

# Liberty IT - Intern Software Engineer

Contributed to an agile team's effort in migrating Cyber Security service offerings from the legacy platform (Request-IT) to ServiceNow. Responsible for form development and testing in ServiceNow, implemented front-end design and backend data flow. Engineered backend data flows by configuring scripts and creating API calls to designated endpoints.

Undertook a supplementary project focusing on AWS and TypeScript, to develop and deploy Lambdas through a CI/CD pipeline, which interacted with data in a DynamoDB. Set up routes for API path, secured by OAUTH2, with read and write scopes. Used Postman to interact with the application, and test functionality.

September 2019 - Present

Marble Arch Caves, Dunnes Stores, Stewarts Butchers - Customer Service Based Roles

My experience in customer service spans diverse roles, including a tour guide at Marble Arch Caves, a sales assistant at Dunnes Stores and a counter assistant at Stewart's Butchers. In these positions I developed the ability to be an effective communicator and how to adapt to customer needs. These roles included tasks such as delivering educational content to diverse groups, operating tills and providing quality customer service in fast-paced environments.

#### Education

September 2021 - June 2025

BSc Computer Science, Queen's University Belfast

Classification: First Class Honours (1:1)

# **Projects**

### Early Dropout Prediction System - Python, FastAPI, Vue, ML, Data Mining

Designed and deployed a full-stack ML platform to predict student dropout risk and support academic advisors with data-driven interventions. Built a modular data pipeline to enrich student profiles and dynamically route between ML models based on data completeness. Trained and optimised Random Forest classifiers using academic, behavioural, financial, and demographic features, achieving 80%+ early-stage prediction accuracy. Leveraged SHAP for interpretable AI, providing transparency into individual risk drivers. Developed a secure FastAPI backend with JWT authentication and role-based access, and a Vue.js frontend with interactive dashboards, risk visualisations, and filtering tools.

## QUBEditoron3000 - Python, Docker, Kubernetes, Terraform

Developed and enhanced the QUBeditoron3000, a cloud-deployed text editor, by implementing backend functions in a range of technologies, improving frontend asynchronous handling and error management, designing a custom proxy router for dynamic service discovery, and integrating a monitoring and metrics service using Grafana for performance testing and alerting. Utilised containerised environments, CI pipelines, and stateful text saving to optimise functionality and scalability.

### House Findr (Individual Project)- Python, Web Scraping

Developed a web scraper using BeautifulSoup to capture daily PropertyPal listings matching specific price, location, and size criteria. Implemented realistic user-agent headers, rotating IPs, and randomised delays to bypass anti-scraping measures effectively. The scraper facilitated mass applications to relevant properties, resulting in the successful acquisition of a house for a group rental.

#### **Achievements**

**Professional Achievement** - Selected to visit Liberty Mutual's office in Portsmouth, to take part in project kickoff meetings, to plan the migration of cyber security service offerings into ServiceNow. **Fermanagh Senior Championship Semi-Finalist** - A part of the Belnaleck football team which reached the championship semi-finals, demonstrating teamwork and dedication in high-pressure environments.

Guitar Grade 3 - Self-taught up to an equivalent of Grade 3 proficiency in guitar.

**John Paul II Award** - Recognised for completing 40 hours of voluntary work, helping run the local youth club and football team.

**QUB Computer Science Course Representative** - Represented final-year students, liaising with faculty to improve academic experiences and advocate for student needs.

#### **Interests**

**Building personal tech projects** - Passionate about developing solutions to real-world problems. For instance, the House Findr project was created to streamline the process of identifying and securing suitable rental properties for group living.

Guitar: Enjoy playing and improving as a self-taught guitarist

**Football**: Actively participate in Belnaleck's Senior Football team, combining teamwork, fitness, and competition.

**Travelling**: Love exploring new places and cultures, broadening perspectives through adventure. **Exploring the Outdoors**: Enjoy the challenge and thrill of outdoor activities, particularly surfing and hiking.