

# Alan Byrne

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**Portfolio:** <https://alan-john-byrne.github.io/My-Portfolio/>

## **SUMMARY**

Highly motivated Computing with Software Development graduate with a GPA of 3.96. Proficient in Python, Angular, and various web development frameworks. Strong interpersonal skills and team collaboration experience. Seeking a Graduate level position to leverage my expertise in software development and or AI.

## **EDUCATION & QUALIFICATIONS**

2020 – 2024

**BSc (Honors) Computing with Software Development**

**GPA:** 3.96 / 4.0

**4th Year Modules:** Final Year Project Thesis (**A**); Algorithms & Computation (**A**); Computational Theory (**A**); Enterprise Performance Architecture (**A**); Enterprise Application Development 1 (**A**); Enterprise Application Development 2 (**A**); Applied Machine Learning (**A**); Applied Artificial Intelligence & Deep Learning (**A**); Interactive Media Design (**A**); Information Management (**B+**);

**3rd Year Modules:** Data Structures & Algorithms (**A**); Cloud Services & Distributed Computing (**A**); Client-Side Web Development (**A**); Server-Side Web Development (**B+**); Operating Systems (**A**); Big Data Technologies (**A**);

**2nd Year Modules:** Software Development 3 (**A**); Software Quality Assurance and Testing (**A**); Advanced Database Technologies (**A**); Network Fundamentals (**A**); Client-Side Web Development (**A**); Discrete Mathematics 2 (**A**); Software Development 4 (**A**); Project (**A**); Data Administration and Analysis (**B+**); Routing & Switching Essentials (**A**); Information Security (**A**); Management Science (**A**);

**1st Year Modules:** Visual Design and Used Experience (**A**); Computer Architecture (**A**); Business & Information Systems (**A**); Systems Analysis (**A**); Software Development 1 (**A**); Critical Skills Development (**A**); Operating Systems Fundamentals (**A**); Discrete Mathematics 1 (**B+**); Software Development 2 (**A**); Social Media Communications (**A**); Database Fundamentals (**A**);

## **Significant Projects undertaken on campus:**

### **IBM Final Year Project Thesis.**

#### **Description:**

Jira-Collab was a mobile project management android app developed for IBM, integrating with Atlassian's Jira Cloud Software via its API. Users can view team members' progress, collaborate through task comments, and use real-time chat powered by Firebase Firestore. Notifications are managed using Google Cloud functions, which listen for changes in the issue chats and notify users. The app reflects real-time updates from the Jira web version, allowing task reassignment, priority and status updates, and comment management.

#### **Challenges faced:**

- Synchronicity between both my mobile application and the web version of Jira.
- Complexity of the authentication system put in place using OAuth 2.0.

#### **Overcoming these challenges**

Creating Jira-Collab presented challenges, especially ensuring real-time synchronization between the mobile app and Jira's web version, which I overcame by utilizing angular behavioral subscriptions. Implementing OAuth 2.0 proved difficult and was tackled by utilizing Jira's OAuth service which was also used to authorize communication with the Firestore real-time database for the chat functionality.

## Game Selling Ecommerce Web Application

### Description

A team project involving the development of a Game Selling Website using the Django Web Framework. Users could buy games and also comment on, and/or rate games they liked or disliked. Features included account authorization, product purchasing, vouchers, user account administration, site usage statistics and user purchasing statistics both of which were extrapolated through the use of graphs. Customization and personalization of user profiles was also included.

### Challenges faced:

- Implementing a fleshed-out voucher system with time validity components and banners.
- Time management between testing various components and improving their functionality.

### Overcoming these challenges

I found that keeping the team informed on a regular basis via online meetings during the busy academic week kept us all on track in order to meet the deadlines outlined for us. This required careful time management and co-ordination by all team members involved.

### WORK EXPERIENCE – GridBeyond

**Company Description:** An energy aggregator providing AI energy management solutions. <https://gridbeyond.com/>

May 2022 – September 2022

IT Internship

### Main Responsibilities

- Migrating the company's current IT change management system from a Microsoft PowerApp to a more flexible service desk application called Freshservice.
- Developing Solar PV Forecasting capabilities using Python for a Portuguese Energy Utility company, one of GridBeyond's investors, Energies de Portugal. This was done by comparing various 3<sup>rd</sup> party weather forecast API's whilst simultaneously exploring open-source solutions such as 'PVLIB' and 'Solar Forecast Arbiter'.

January 2023 – August 2023

Official College Work Placement

### Main Responsibilities

- Worked on projects requiring a broad set of skills ranging across both data science and engineering.
- Providing support on current and past pythonic projects built by others and myself within the company.
- Building projects which help automate repetitive tasks undertaken by people outside of the IT department.
- Supporting the deployment of various individual and team-based projects.

### INTERESTS & ACHIEVEMENTS

#### Sporting:

- Athletics enthusiast. Member of Brother's Pearse A.C from 2014 to 2019 and member of Tallaght A.C from 2021 to 2023. Qualified for the All Irelands in Athlone for the 100m. Won a silver medal in the Dublin championships for high jump, and gold for discuss throw.

#### Professional:

- Attendee of CoderDojo in primary school.
- Certificate for JavaScript Course (Codecademy).
- Certificate for C# Course (Codecademy).
- Certificate for HTML, CSS, and JavaScript For Web Developers (Coursera).
- Certificate of Excellence AWS Cloud Computing Competition.
- Certificate of Fundamentals of Deep Learning by NVIDIA.

#### Posts of responsibility:

- Made class rep for my second year of college.