

# Alan Byrne - CV

## CS ◦ Software Development Graduate

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### Professional Summary

Highly motivated Computing with Software Development graduate. Proficient in Python for AI, & Angular for Web Dev. Strong interpersonal skills with team collaboration experience. Seeking Graduate positions to leverage expertise in CS, SW and/or AI.

### Education & Qualifications

BSc (Honors) Computing with Software Development		GPA 3.96 / 4.0		2020 – 2024
<u>4th Year Modules:</u>	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+
<u>3rd Year Modules:</u>	Data Structures & Algorithms	A	Cloud Services & Distributed Computing	A
	Operating Systems	A	Data Analysis	A
	Big Data Technologies	A	Server-Side Web Development	B+
	On-Site Work Experience	PASS		
<u>2nd Year Modules:</u>	Software Development 4	A	2 <sup>nd</sup> Year Team Project	A
	Routing & Switching Essentials	A	Information Security	A
	Management Science	A	Data Administration & Analysis	B+
	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
<u>1st Year Modules:</u>	Software Development 2	A	Operating Systems Fundamentals	A
	Social Media Communications	A	Database Fundamentals	A
	Statistics	A	Critical Skills Development	A
	Software Development 1	A	Computer Architecture	A
	Business & Information Systems	A	Systems Analysis	A
	Visual Design & User Experience	A	Discrete Mathematics 1	B+

### Significant Projects Undertaken

**IBM Final Year Project Thesis:** Jira-Collab was a mobile project management android app built using the Ionic-Angular Mobile development framework, for IBM. It integrated Atlassian's Jira Cloud Software via its API. Users could view team members' progress, collaborate through task comments, and use real-time chat powered by Firebase Firestore. Push Notifications were managed using Google Cloud functions, which listened for changes in issue chats in order to notify users. The app reflected real-time updates from the Jira Cloud web version, allowing task reassignment, comment management, priority and status updates.

#### Challenges Faced -

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

#### Overcoming challenges -

- Synchronization was overcome by utilizing angular behavioral subscriptions.
- Jira's OAuth service used to authorize with a Firestore real-time database.

#### **Game Selling Ecommerce Web Application (2<sup>nd</sup> Year)**

A Django-based game selling website. Features which were included were game purchasing, rating and commenting. Account authorization with user profile customization including admin controls. Timed vouchers, , purchasing statistics using graphs were also included.

#### Challenges Faced -

- Implementing a fleshed-out voucher system with validation components.
- Testing various components and improving their quality / functionality.

#### Overcoming challenges -

- Team communication via regular online meetings was key during academics.
- Time Management and Co-Ordination by all team members involved.

## IT Skills

- Proficient in the use of Python, Java, C#, C++, Bash, PowerShell, Typescript, JavaScript, Rust.
- Deep knowledge of SQL queries to an intermediate degree using Oracle 11G.
- Creating and designing database schemas via the .NET framework.
- Can analyze data using the Python libraries.
- Good knowledge of Streamlet, a data visualization web application framework.
- Proficient with WSL2 for ML workflows using Jupyter, NVIDIA CUDA, and TensorFlow.
- Competent in both Frontend and Backend Development through the use of HTML5, CSS, TypeScript and Angular.
- Ability to design systems using UML through the use of Visual Paradigm.
- Avid user of Windows and Linux operating systems for system administration and configuration.
- Designing, building and troubleshooting networks containing routers, switches and host devices on packet tracer.
- Decentralized project management systems such as Azure and GitHub, as well as version control using Git.
- Implemented serverless solutions on GCP with Cloud Functions, Cloud Run, and Firestore for scalability.
- Strong understanding of the Ionic-Angular mobile application framework.
- Moderate understanding of NeoVim and Lua.

## Work Experience ° GridBeyond

### Company Description

Energy aggregator providing AI energy management solutions. Visit at [GridBeyond.com](https://GridBeyond.com)

### IT Internship

May 2022 – September 2022

#### Main Responsibilities -

- Migrating the company's current IT change management system from a Microsoft PowerApp to a 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.

### Official College Work Placement

Jan 2023 – August 2023

#### Main Responsibilities -

- Worked on projects requiring skills ranging across both Data Science and Engineering.
- Providing support on current and past pythonic projects built by others and myself.
- Building projects helping automate repetitive tasks undertaken by people outside of IT.
- Supporting the deployment of various individual and team-based projects.

## Interests & Achievements

### Fitness – Athletics Enthusiast

- Member of Brother's Pearse A.C from 2014 to 2019
- 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.
- Won a gold medal in the Dublin championships for discuss throw.
- Regular Attendee of ParkRun.

### Professional

- Attendee of CoderDojo in primary school
- [Certificate for JavaScript Course](#)
- [Certificate for C# Course](#)
- [Certificate for HTML, CSS, and JavaScript For Web Developers](#)
- [Certificate of Excellence - Cloud Computing Competition 2022](#)
- [Certificate for Fundamentals of Deep Learning by NVIDIA](#)

### Posts of responsibility

- Made class rep for my second year in college.