

## TECHNICAL SKILLS

<b>Programming Languages</b>	Java, Python, C, Ruby, VB.NET, Scheme, UIPath	<b>Web/App Development</b>	HTML, CSS, JavaScript, React Native
<b>Version Control</b>	Git	<b>Project Management Tools</b>	Jira, Trello, Gemini
<b>Databases</b>	MySQL	<b>Packages/Add-Ons</b>	JUnit, JavaFX, Scikit learn, NLP Toolkit
<b>Visualization</b>	Tableau, Matplotlib, Seaborn, Gephi, Vega Lite		

## EDUCATION

### BSc (Hons) Computer Science with Data Science

University College Dublin

09/2018 - 06/2022

GPA: First Class Honors

#### Relevant Courses

- Java
- Data Science in Python
- Secure Software Engineering
- C / C++ Programming
- Algorithms / Data Structures
- Software Engineering I & II
- Object Oriented Programming in Ruby
- Databases & Information Systems
- Data Mining
- Distributed Systems

## PERSONAL PROJECTS

### Voucher Mobile Application (4 Sprints) – React Native – (08/2021 - Present)

- Currently implementing the third sprint of a personal project with a small team of six software engineers to create a mobile application in **React Native**. Involves a subscription-based voucher/couponing system that users can use for discounts/deals with local restaurants. Currently collaborating to create UI design, voucher redemption and creating the back-end of the app, **writing APIs** to store and retrieve user and restaurant data that is stored in a non-relational Firebase Database. Key features include: Facebook sign up, user authentication, restaurant favouriting, geo-hash location filtering, coupon redemption and savings calculator. The app is to be delivered before Summer 2022.

### Software Engineering II – Scrabble (5 Sprints) – Java – Best App Prize Runners Up – (04/2020)

- Collaborated with two other students to create the Scrabble board game in **Java/JavaFX**. This achieved **'Runners Up' for the best app prize** of the entire academic year. Contributed to the development of the game logic, UI (using Java FX) and the bot that the user could play against. This involved writing **efficient algorithms** to check words against a dictionary (using **trie data structures**), calculating the best move for the bot (which ultimately competed against other bots of the academic year) and **creating graphical animations** for the appearance of the UI. The project followed a **SCRUM** development cycle, consisting of five sprints where the SCRUM master would alternate each sprint. **Git** was used for version control and **Trello** was used for development planning.

### Information Systems Design and Development Project – MySQL – (10/2019)

- Devised and implemented a relational data model in **SQL Workbench** for a hospital-based scenario. Designed numerous queries in SQL for retrieving data from the database.

### Software Engineering I – Igel Argern – C – (04/2019)

- Contributed to the development of a German board game, called 'Igel Argern', in **C** with another classmate. The app involved the idea of a multiplayer game, where each player would race their stack of hedgehogs to the finish line. Wrote functions to **modify stack data structures** by **dynamically allocating** and freeing memory, contributed to game logic including writing the conditions of a winning player and efficiently displayed the game on the command line.

---

## WORK EXPERIENCE

---

### Process Automation Engineer Intern

#### Bank of America

03/2021 - 09/2021

Dublin

##### Achievements/Tasks

- Became a qualified UiPath developer - Created bots in **UiPath** to automate parts of the AML screening process and to provide insight in license reporting.
- Python - Wrote scripts/programs in **Python** to integrate with different Bank technologies to assist in the data gathering process for an AI Proof of Concept (POC)
- Natural Language Processing AI - Assisted in the development of a natural language processing AI using SVM classifiers for news article sentiment analysis. This was done in **Python** using packages like **SkLearn**.

### Quality Assurance Engineer

#### Ayrza

06/2020 - 09/2020

Dublin

One of the UK's leading suppliers of software solution into the debt, insolvency and credit fields.

##### Achievements/Tasks

- Tested front/back end components using white/black box, regression and acceptance testing practices
- Created relatively complex spreadsheets for aiding and assisting testing of difficult mathematical components of client applications
- Used CMS and CRM to test and configure websites and applications
- Tested APIs with Postman

### Student Intern

#### m3 Networks

10/2017 - 10/2017

Perth, Scotland

Multi-site IT support and cyber security company

##### Achievements/Tasks

- Awarded work experience after coming 1st place in their IT competition (see Awards and Achievements)
- Learned basic networking, hardware assembly and ethical hacking practices
- Learned how to make ethernet cables via crimping
- Learned how to use Kali Linux for brute forcing
- Learned about virtual machines by using Oracle Virtual Box

---

## AWARDS & ACHIEVEMENTS

---

### IT Competition – 1st Place – (10/2017)

m3 Networks

- Featured in local newspaper:  
<https://www.cunninglygood.com/perth-company-m3-networks-inspires-tech-stars-future-innovative-perth-kinross-schools-competition/>
- Achieved 1st place in an IT competition offered to all students in Perth and Kinross in Scotland. Winning awarded a £200 cash prize and work experience with the company.
- The competition involved a 10k word business proposal to rebuild a hypothetical company's IT infrastructure

### Oracle Academy: Oracle Database Design and Programming in SQL – (04/2018)

Oracle

- Teaches database design/modelling and basic SQL that involved single and group functions, joins, subqueries and sequences along with DML, DDL and TCL

---

## SKILLS & COMPETENCIES

---

### Team Work and Communication Skills

Whilst working at Bank of America, the incredible size of the company demands solid team work and communication skills in order to develop applications collectively across the globe.

### Volunteering

Code First Girls: Volunteered to teach university level girls the basics of Python programming. The team I mentored won 1st place.

---

## REFERENCES

---

Available upon request