**Craig Whelan**

085-1491358 | craigwhelan19@gmail.com | craig19.github.io/portfolio/

* Fourth year Computer Science student used to adapting to high pressure and tight deadlines, familiar with agile methodologies, and fast at picking up new programming languages, frameworks and technologies. Proficient in a broad range of programming languages, frameworks, and project experience with CI/CD automated testing & AWS cloud architectures.

**IT SKILLS**

* Capable of designing, implementing and maintaining cloud-based architectures in AWS. Knowledge of a variety of AWS services/APIs: from IAM and CloudWatch to Compute Auto Scaling & Lambda.
* Also familiar with Azure and Google Cloud.
* Knowledge of microservice architectures and containerization.
* Project experience in leveraging various AI/ML APIs such as Azure Read OCR, AWS Textract, Google Vision.
* Project experience in leveraging CI/CD tools in Azure DevOps to automate testing and deployment.
* Confident developer in C#. Capable of building full-stack Web Applications in the ASP.NET ecosystem; MVC 5/6 & Razor Pages.
* Currently studying backend RESTFful web services with .NET Core Web APIs.
* Also familiar with Java and C++.
* Currently studying the Rust programming language.
* Proficient with Git and Git Workflows.
* Can monitor systems using Bash Scripts.
* Capable of using both SQL and NoSQL databases.
* Capable of analysing and visualizing data in Tableau.
* Can analyse data using R, RStudio and create reports using RMarkdown.
* Knowledge of front-end web technologies/libraries such as Node.JS, Next.JS and React JS.

**EDUCATION & QUALIFICATIONS**

***BSc in Computing with Software Development* 2016 - present**

Technological University Dublin (Tallaght Campus)

On track to achieve First Class Honours

**1st Year Modules studied:** Software Development 1, Software Development 2, Business & Information Systems, Visual Design, Introduction to Operating Systems, Statistics, Systems Analysis, Web and Database Fundamentals, Discrete Mathematics, Systems Analysis 2.

**2nd Year Modules studied:** Networking 1, Information Security, Software Development Project, Software Development 3, Object Oriented Analyses & Design, Software Development 4, Networking 2, Web Design & Development, Discrete Mathematics 2, Software Quality Assurance & Testing, Database Design & Programming.

**3rd Year Modules studied:** Cloud Services & Distributed Computing, Operating Systems, Data Analytics, Advanced Databases, Web Application Development, Data Structures & Algorithms/C++.

**4th Year Modules studied (current GPA: 3.80):** DevOps: CI/CD, Enterprise Applications Development 1, Interactive Media Design & Visualization, Information Management, Enterprise Performance Architecture.

Modules in progress: Enterprise Applications Development 2, Algorithms & Computation, Computation Theory, 4th Year Major Project, AWS Cloud Practitioner & Solutions Architect.

**Significant Projects Undertaken**

**Booking System Web Application**

**Description**

For my 4th year project I am working on a full-stack Booking System for CSinc.ie. The system is currently live and has taken hundreds of camp bookings from schools all over Ireland. I am continuously maintaining and adding new features to the application, including an upload feature which will automate the process of extracting handwritten data from thousands of collected surveys and entering the data into an AWS RDS database for research purposes.

**Challenges faced:**

* Build a secure and reliable system capable of handling thousands of camp bookings.
* Implementing an efficient feature which is capable of scanning thousands of uploaded handwritten surveys, accurately extracting answer data line by line and entering it into a database.
* Leveraging an AI/ML OCR API to help parse handwritten text from surveys into ASCII characters for database entry.
* Implementing highly accurate logic and algorithms to measure checkbox pixel density which allows parsing of handwritten checkbox marks from surveys for database entry.

**Technologies & Tools Used:**

Azure DevOps CI/CD pipeline with automated testing (unit testing, K6 load testing, Zap security testing & Selenium testing), deployed to a scalable AWS architecture and built with ASP.NET MVC5. Leveraged the Azure Read OCR API (also tested the Google Vision OCR and AWS Textract OCR APIs for accuracy with handwritten survey answers; the Azure Read API provided the highest level of accuracy)

**Help-desk Support System**

**Description**

In 2nd year I designed, developed, implemented and tested a Help-desk Support Ticketing System from conception to execution. This was a desktop application which allowed users to create an account & submit as many support tickets as necessary. The tickets are then submitted to the right person or department for resolution. Other features include, ticket tracking (edit/remove tickets), ticket priority numbering, user/admin dashboard views & user account management (edit general details, password, security question/answer etc.).

**Technologies & Tools Used:**

Java, Eclipse IDE, Swing GUI toolkit, Java Database Connectivity (JDBC) API, SQL, SQL Developer & Oracle Database Express.

**INTERESTS & ACHIEVEMENTS**

Professional

* + Currently attending Amazon AWS evening classes at the college during my spare time. Aiming to complete AWS Solutions Architect Associate exam in June 2020.

Posts of responsibility

* + Volunteered with the Peter McVerry Trust. Involved in fundraising; helping to organize monthly events & participating in the events to raise money for the charity.

Sporting

* + Certified fitness instructor accredited by the EHFA. Help family and friends achieve personal health and fitness related goals. Also host weekly gym circuit training class.

**REFERENCES**

Dr. John Burns

john.burns@tudublin.ie