

# ROBIN O 'SHEA

## Software Engineer

## Contact Details

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## Skills

Python

Java

C#

JavaScript

HTML

CSS

MySQL/MongoDB

Unity

Assembly

React

Bash/Batch

Software Testing

Graduated with BSc in Computer Applications (Software Engineer) from DCU. I have completed an internship in DCU working within a project team developing software and a plethora of customer support. The past year I have been improving my knowledge in programming as well as incorporating new skills along the way working on personal projects. Adaptable to change and always eager to learn new skills and to apply my expertise on a larger scale.

## EDUCATION

### LEAVING CERTIFICATE

SEPTEMBER 2010 -SEPTEMBER 2015

Belvedere College

### B. Sc COMPUTER APPLICATIONS & SOFTWARE ENGINEERING

SEPTEMBER 2016 -SEPTEMBER 2020

DUBLIN CITY UNIVERSITY

**Subjects:** Computer Programming, Data Warehousing & Data Mining, Concurrent and Distributed Programming, Advanced Algorithms and AI Search, Web Design

## EXPERIENCE

### Intern

JUNE 2019-AUGUST 2019

DCU

Worked as part of a project team to develop a system funded by Vista Milk for automated web scraping of dairy produce of which was then translated from CSV format to a SQL database. A Django web framework was used to host a website to display each scraper's success or failure.

Testing was also automated using Jenkins. Agile scrum methods were done on a weekly basis. Utilised Python, Django, Jenkins, Bash, Batch, Git, logging, Selenium, Beautiful, Soup, SQL, Pandas

### Part Time/Full Time Employee

2015-2017

Nolan's Supermarket

Full time employee as a shopfloor assistant in Nolan's supermarket. Responsible for stock taking, restocking shelves as well as catering for customer inquiries of their needs. Overall, as my first job I learnt a lot about my responsibilities of being employed, giving my utmost contribution and showing equal respect to fellow workers

### Part Time Employee

2018

Supervalu

Worked within a deli department as a team of five colleagues. Responsible for opening and closing the deli, stock checking, taking orders for new stock, cooking, cleaning and serving customers. This job was another example of my experiences with customer service and working within a team

# Projects

## DCUGO

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A Unity based mobile application that utilises web scraping to download a student's timetable and make them aware of their upcoming lectures. To better bolster the usability and understandability of the UI I created a to-scale rendering of the DCU campus which sits on top of a tiled map. These tiles are then treated as nodes which are passed to our A\* search pathfinding algorithm which will then find the most efficient route from the user's current location to the building containing their next class.

## Mylio

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Android Application that records a user's shopping via image recognition of receipts that aims to prescribe recipes based on the products bought. The back end uses a python environment to web scrape relevant data on common food recipes which are output to csv's based on the ingredients needed to prepare the meal and then inserted into a SQLite database. A separate table of data is constructed of ontologies of all food produce mapped to the actual food type. A flask web environment is used to handle incoming http requests of parsed interpreted produce from the front end. After that, a string similarity algorithm is then used on the interpreted produce against the actual database followed by a select query on ontologies and recipes

## Web Scrapers

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An automated web scraping system. Data is sourced from thirty-eight sites which is stored in a SQL database and is monitored through a Django web framework. Python back end consists of all web scraping programs for each site of relevant data. These scrapers are loaded into a MySQL database. Batch and Bash scripts are formulated alongside Jenkins to automate these scrapers and using the Django framework alongside jQuery each scraper is displayed within a GUI indicating the success or failure of the last runtime of each scraper

## Chat Application

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Web server chat application using web sockets. Users can login with their own username and join a room by giving its groupID. From there, they can send messages to other users in the room and send their current location. Client and server side of the project are composed using JavaScript with moustache library to dynamically generate broadcasted messages into the chat and NodeJS to host the socket server using socket.io library and express framework.

## Task Manager Application

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Simple web server in NodeJS for handling HTTP requests and parsing json data received. A visitor to the site can create an account, update their profile picture or account details. All accounts have their own authentication token represented by a JSON web token. Details are stored on a mongo DB server, Data sanitation, filtering and validation are done using mongoose library