

SEBASTIAN RICHARDS

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OBJECTIVE

A recent Computer Science MSc graduate with a solid fundamental understanding of programming languages and the software design and implementation process. I am looking to establish myself in a long-term career where I can continue to improve upon my knowledge and grow as a software developer.

PROJECTS – All projects can be viewed on my portfolio website linked above

Project 1 – Digital Twin for Microreactor Simulation Environment

This application utilises the MERN stack to interface with OPC UA, allowing a user to specify a virtual chemical microreactor which initialises an OPC UA server containing the specified information. With the expressJS backend, users can make backend API calls to trigger OPC UA client calls that communicate with the newly initiated OPC UA server, fulfilling the criteria of a digital twin simulation.

Languages used: ReactJS, ExpressJS, nodeJS, mongoDB, nodeOPCUA client/server

Project 2 – Flask Social Network Microblogging Service

The project allows users to create an account, login and create a post as well as comment and like these posts. The user can update their profile information by changing their profile picture and password. The users' passwords are encrypted using Bcrypt.

Languages used: Python, SQLite, Flask, HTML, CSS, Bootstrap deployed using Heroku

Project 3 – 'Don't take that bait!' Game

This project is a 2d platformer where the user presses the space button to keep the shark afloat with the objective of surviving as long as possible by dodging hooks and monsters that spawn. The game adopts an OOP approach using an infinite loop with collisions between objects generating new game events.

Languages used: Python, Pygame

LANGUAGES

JavaScript, ReactJS, ExpressJS, mongoDB, Python, SQLite, HTML, CSS, Java, Flask, Django, Bootstrap, Heroku, Git, Linux, Pygame, Tkinter, VS Code

EDUCATION

MSc Computing – Cardiff University (2020-2022)

BSc Chemistry with Medicinal Chemistry – University of Warwick (2014-2017)

GCE Levels | Maths(A), Chemistry(A), Physics(B) – Royal Latin School (2012-2014)

PREVIOUS WORK EXPERIENCE

- Noden Farms Daventry – Farm Worker (05/19 – 10/19)
- 20/30 Labs Northampton - Laboratory Technician (09/18 – 02/19)
- Find New Business Buckingham – Sales Executive (05/18 – 09/18)
- Abbey CE Academy – Teaching Assistant (01/18 – 05/18)