Callum Penny

Computer Science Graduate

A Computer Science graduate of Lancaster University with a passion for creation and a keen interest in full stack web development. I'm eager to start my career at an organisation where I can contribute to projects and learn from those around me, while gaining a hands-on experience.

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EDUCATION

Computer Science BSc Hons (2:2)
Lancaster University

10/2015 – 08/2018

Summary

- In first year I studied the fundamentals of computer science, software development, information systems and digital systems. These modules extended on pre-existing experience and helped to deeper develop programming skills.
- In second year I extended my knowledge through studying software design, advanced programming, databases, human computer interaction, social and ethical issues and computer networks.
- I worked in a group to develop a tetris inspired game. We used basic scrum practices to delegate work and report back to the team. I was responsible for the design and implementation of the games graphics, developing the acceptance and accessibility tests and creating the game design report. It helped me develop skills needed to work within a team and contribute to a project, while allocating workloads to different members of the team to reach a goal with a set deadline.
- In third year I studied modules including; artificial intelligence, security and risk, languages and compilation, an optional advanced networking module and internet applications with gave me experience in building responsive web-pages with media queries, while thinking about accessibility guidelines.
- For my dissertation, through a user study - in a real time statistic-based scenario, I compared data representational methods used in second-screen football applications to determine the optimal way in which data can be presented to a user in order to reduce the users cognitive load. During my research I developed analytical skills through the study and evaluation.

BTEC Level 3 Extended Diploma in Software Development (Distinction, Distinction, Merit)
The Manchester College

09/2012 – 07/2014

Summary

- Studied the fundamentals of programming paradigms including object oriented, event driven, and procedural programming. This was complemented by learning multiple programming languages such as Python and C++ to reinforce the concepts of the programming paradigms.
- Developed an application for iOS using Objective-C, granting me exposure to MVC concepts, as well as the experience of creating view controllers to manage the applications interface.
- Gained experience in software design & development, information systems and systems analysis.
- Developed an understanding of communication technologies, networking protocols and network security.
- Studied front and back-end web development using HTML, CSS and JavaScript for the front end. As well as ASP.NET and C# for the back-end.
- Developed knowledge of databases, including designing and developing through MySQL. Covering fundamentals such as querying and updating, as well as the concepts of designing a database such as primary and foreign keys.

SKILLS

HTML5 | CSS3 | JavaScript | SQL | Git | C# | ASP.NET | Java | ReactJS | React Native | NodeJS

PERSONAL PROJECTS

Total Daily Energy Expenditure Calculator (07/2018 – 10/2018)

- I created a ReactJS web application, later converted to React Native and released on the Play Store. The program takes multiple inputs and calculates your TDEE specified through a chosen formula, along with macro-nutrient ratio based on a chosen diet.
- The application was developed with a deadline of three months to challenge myself to learn a new language and develop a working application. This has allowed me to develop my time management skills in regards to producing a product to a deadline.
- The motivation to develop this application was mainly to learn a modern front-end framework, as well as my enthusiasm for fitness. I wanted to create a simplistic way for people to track their diet with a modern interface. Having used other applications to calculate TDEE and macro-nutrients, I have found there to be many inconsistencies and over-complexities.

Flash Card Application (01/2019 – 03/2019)

- I created a React Native mobile application which has been released on the Play Store. This application mimics the way flashcards work when studying a topic.
- Some of the functionality includes; being able to create multiple decks and multiple flashcards for each deck, which are stored locally to the device. The ability to shuffle the deck of cards into a random order. To display the results to the user at the end of the deck.
- I decided to create this application to challenge and develop myself further with the React framework mainly through incorporating state management to have a persistent state.
- My motivation for this application was due to using flashcards for revision during university. I found it tedious writing out an indefinite amount of flashcards on a limited amount of cards which also cost. In contrast to a free application where all of your cards are in one place, making them easily manageable with no cost required.