LIAM PATRICK DOYLE

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LiamDoyle9

Education

2019-2020 **MSc Software Development (Distinction)** — **University of Strathclyde, Glasgow**
Relevant Courses:
Object-Oriented Programming; Software Engineering; Computer Security Fundamentals; Database Design & Development; Mobile Application Development.

2015-2019 **BSc (Hons) Computer Systems** — **Heriot-Watt University, Edinburgh**
Relevant Courses:
Data Communications & Networking; Artificial Intelligence & Intelligent Agents; Digital and Knowledge Economy; Data Visualisation & Analytics; 3D Graphics & Animation

2013-2015 **HND Computer Networking & Technical Support** — **Glasgow Kelvin College, Glasgow**

Skills

Languages:

Java, Python, JavaScript, HTML, CSS/Sass, SQL, PL/SQL.

Technologies:

Unit Testing, Version Control (Git), Data Visualisation (D3.js)

Experience

2019 **Research Assistant** — **University of Edinburgh, Edinburgh**

- Research project interested in performing and representing variable abstraction in elementary programming. The paper written for this project is currently awaiting peer-review.
- Responsible for testing and refining the experimental procedure. Positive feedback from supervisor staff and test participants show that the experimental procedure was effective.
- Strong research skills essential to carry out a comprehensive literature review surrounding elementary programming that was used by project leader in the final academic paper.
- Assist with the initial data analysis on the results and present the initial findings to senior research staff and other bodies associated with the project.

2018/19 **STEM Ambassador** — **Heriot-Watt University, Edinburgh**

- Provided support to computing staff teaching computing related subjects to students at NAT5 – Advanced Higher level.
- Demonstrated ability to work with diverse student demographics.
- Developed lesson plan utilising small interactive robots (Cozmo) and a Python SDK to teach students how to write their own interactive scenarios using Scratch and Python. This project was presented at the Advanced HE STEM Teaching and Learning Conference 2019 (Session 6.2b) by my project supervisor (Dr. Tessa Berg, Heriot-Watt University)

2015/19 **Masterclass Host** **The Voodoo Rooms, Edinburgh**

- Developed and presented talks relating to the Whisky and Cocktail industry in Edinburgh.
- Worked alongside companies like William Grant & Sons, Bacardi and PBH Free Fringe to deliver cocktail masterclasses at public events.
- Extensive public speaking experience having hosted cocktail masterclasses for both private functions and cooperate events.
- High standards of presentation and attention to detail essential as role sees me representing industry leading brands in front of large groups of people.

Projects

Ongoing **Hello, <Programming Language>!** **Personal Project**

- Personal website / online portfolio built using HTML / CSS (Bootstrap 4.5) and JavaScript to showcase past, present and future programming related projects.
  https://github.com/LiamDoyle9/Hello-PL

2020 **Master's Thesis: Automated Verification of Java Concurrent Systems** **University of Strathclyde, Glasgow**

- The aim of this project is to develop an automated tool that implements software verification techniques for concurrent Java systems. Specifically, I am focusing on a program's cyclomatic complexity and the number of synchronised blocks and methods within the source code to generate a quantitative value that represent the complexity of concurrent software
  https://github.com/LiamDoyle9/JSAT

2019/20 **Android Studio: Java Data Structures & Algorithms** **Personal Project**

- A Java based project using Android Studio to provide a visual and interactive demonstration of different data structures and algorithms
  https://github.com/LiamDoyle9/Android-Java-DSA

2018/19 **Undergraduate Dissertation: Interaction Design Guidelines for Recommender Robots in an Advisory Capacity** **Heriot-Watt University, Edinburgh**

- The aim of this project was to research what factors affect the way we trust information provided by robots / autonomous systems so that a set of interaction design guidelines could be produced to the effectiveness of human-robot interactions.
- A humanoid robot and SDK (Java/Kotlin) provided by Furhat Robotics was used to create an interactive scenario between the robot and each test participant. I was able to use functionality provided by the SDK to incorporate facial recognition / tracking, animation, modify anthropomorphic traits (age, sex, ethnicity) and implement text-to-speech functionality.

References available on request.