

Yola Jones

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Research

PhD Student | September 2019 – Present | University of Glasgow

I am currently doing a PhD at the University of Glasgow analyzing the rate of sudden death using routinely collected health data, with the goal of creating a tool using machine learning to predict those at an increased risk.

Skills & Abilities

Programming

- C/C++
- Java
- Python
- Bash
- MATLAB

Development Processes

- Agile
- Waterfall

Software Versioning

- SVN
- Git

Other

- Linux/Ubuntu
- SQL
- JUnit testing

Education

MSc Software Development | September 2018 – September 2019 | Glasgow University

This degree focused my expertise towards Software Engineering from my previous degree, including courses on databases, cyber security, data structures and cryptography among other subjects.

MEng with Distinction | Robotics, Autonomous and Interactive Systems | June 2018 Heriot-Watt University

My course was a unique mix of electrical engineering and software engineering, focusing on artificial intelligence and deep learning alongside embedded programming. Whilst at university I completed a multitude of group projects and a range of courses, including embedded software, biologically inspired computation, advanced software engineering and image processing.

KEY PROJECTS

Airport Simulation using Object Oriented Programming

Working in a team with two others, I designed and built an airport simulation in Java using standard software development work processes. The project required the use of threads, parallel processing, graphical user interfaces and object-oriented programming to simulate the flow of passengers and planes in an airport. The first half of the project was developed with the waterfall development process, while the latter half was using agile, specifically Scrum.

Deep Learning for Image Enhancement and Visibility Improvement

For this project, I built an image filtering algorithm to filter low light images using deep learning. I created the program using a convolutional neural network which was implemented using TensorFlow and Python. I then trained the filter using supervised learning to take an image and filter it to reduce the effects of low-light, making the image subject clearer and more visually appealing.

Robotic Design and Manufacture (year-long masters project)

This project involved designing and building a robot to compete in the NXP Cup (formerly known as the Freescale Cup), which required the build of a 1:16 car that would run autonomously around a track. This was an extremely challenging project which required a range of skills including image processing, system design, embedded systems programming, mechanical design and extensive levels of problem-solving.

Business Awareness, Safety and Sustainability

I was the team leader in a group of chemical engineers, electrical engineers and mechanical engineers for this project, with the goal of developing a commercially viable business plan for a company created to solve a technical engineering issue. Acting as the group leader in a group of people with a wide range of skills and backgrounds, the project required excellent team management and interpersonal skills to bring the group together and utilize each member's individual strengths.

Industry Experience

Software Engineering Intern | Exterity | May – September 2018 | May – December 2017

May – September 2018

During my internship I improved Exterity's continuous integration system, to better suit the needs of the company's engineers. I completely reimplemented their Buildbot setup using Python and Bash in order to do this. I worked with both the testing team and the embedded teams, building requirements recursively to create a setup which optimally met their needs while keeping the system simple enough that it could be easily maintained after my internship was over.

May – December 2017

For my first internship, I focused on embedded programming working under the Agile Development methodology, implementing new features on Exterity products by integrating new hardware with existing Exterity user interfaces. I gained a great deal of experience in networking by utilizing the LLDP protocol along with POE+ on Exterity receivers to allow for the management of daisy-chained network nodes to increase network stability.

Care Assistant | Cluny Lodge Nursing Home | May – July 2016

As a care assistant working in care of the elderly, having good time management and communication were critical. This job gave me excellent group working skills along with skills in remaining focused and calm in high-pressure situations while simultaneously maintaining the level of care and compassion elderly residents expect and deserve.

Other Achievements

Volunteer Call Taker | ParentLine for Children 1st Children's Charity | January – May 2016

For this role, I received extensive training in empathy, active listening and remaining calm and collected in extremely stressful situations in order to help those who were phoning and ensure the most appropriate advice was given.

Formula Student | Heriot-Watt Team | September 2015 – May 2018

Formula Student is a competition run by the Institute of Mechanical Engineers in which teams are tasked with designing and building a single seat race car in one year. I spent my time in Formula Student designing and building the teams' data acquisition system, a first in the teams' history. This involved embedded programming with different communications protocols and required a high level of skill in terms of both coding and debugging, combined with the imagination to build a unique system in an area the team was not at all familiar with.