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### **SUMMARY**

I'm a driven and enthusiastic software engineer. My formal education is in video games development but I have made it my mission to learn as much technology as I can. I'm a capable engineer in quite a wide array of fields now and I'm willing to learn more. I am still junior in my software career and I am fully expecting to go into any employment situation with a growth mindset and a hunger to learn more and build up some industry experience.

## **TECHNOLOGY PROFICIENCIES**

### Languages:

C#, C++, OpenGL, Java, Python, SQL, Bash, Javascript

# **Tools and Frameworks:**

Linux; Windows; Git; Unity; Android; Robot Operating System (ROS); Prometheus monitoring and alerting; Gitlab CI; Amazon Firebase database.

### Learning:

HTML/CSS, PHP, Bootstrap

### **EDUCATION**

### **Higher Education:**

Edinburgh Napier University BSc(Hons) Games Development

Important Modules:

Operating Systems

Database Systems

Algorithms and Data Structures

Software Engineering Methods

Computer Graphics Artificial Intelligence

**Physics Based Animation** 

**Data Analytics** 

**Games Engineering** 

**Advanced Games Engineering** 

Multi-Agent Systems

Computational Intelligence

# **Secondary Education:**

Loudoun Academy, Galston

Higher/Advanced Highers (above C level) 2014 and 2015:

5 Highers

1 Advanced Higher

Standard Grades 2013:

7 Credit level (equivalent to A in modern National 5)

Intermediate 2 2013:

1

# **WORK EXPERIENCE**

# Software Engineer - 12th April 2021 to 25th December 2021

Leap Automation - https://www.leapautomation.co.uk/

Responsibilities:

- Ownership of the software updater and client version management software.
- Key engineer responsible for observability and remote alerting for the flagship robotics project.
- Supporting non-technical staff to help them understand and deliver on service and support requirements through excellent communication.
- Develop onboarding material and help new hires get up to speed with our infrastructure.
- Working hands on with the robots to test new configurations, tune parameters, find bugs, or confirm they have been fixed.
- Working with various disciplines of hardware engineer to define and refine requirements and provide good systems for interfacing complex software with hardware components.
- Setting up testing and continuous integration tools and scripts.

### Software Engineer (Contractor) – July 2020 to January 2021

Significant Gravitas - <a href="http://www.significantgravitas.com/">http://www.significantgravitas.com/</a>

Remote

Responsibilities:

- Introduce new features (e.g. atmospheric scattering effect)
- Find solutions to improve performance of existing code (e.g. implementing an object pooling system).
- Code maintenance (e.g. bug fixes, updating deprecated code, integration testing)
- Managing bug reports and feature request tickets from beta users

# Student Demonstrator – November 2018 to April 2020

Edinburgh Napier University - <a href="https://www.napier.ac.uk/">https://www.napier.ac.uk/</a> Responsibilities:

- Teach first year games students game development principles in their personal development tutor sessions in lieu of games specific modules (only generic software engineering/computer science in first year).
- Update and rewrite the Personal Development Tutor lesson plans for first year classes.
- Instruct first year students on the basics of Javascript with HTML5.
- Develop and deliver Unity Game Engine workshops to prepare inexperienced students for Global Game Jam participation.

## Unity Tutor/Python Tutor (Contractor) – 6th July 2019 to 11th April 2021

Firetech Camp - <a href="https://www.firetechcamp.com/">https://www.firetechcamp.com/</a> Responsibilities:

- Teach children aged 12 to 17 how to operate the Unity game engine and program for it using C#.
- Ensure the health, safety, and security of the children, upkeeping child safeguarding standards.
- Leadership of group bonding activities for the children and keeping them enthused to be at camp.
- Time management such as keeping to the lunch timetable and having kids at classes or activities whenever scheduled.
- Teach python classes up to a point where OOP practices can be used with tools to make simple games.
- Work with schools to support formal secondary education.

## **DOWNLOAD OR VIEW MY PROJECTS:**

https://github.com/DanielKorsah https://www.danielkorsah.com

### **PROJECTS AND INTERESTS**

Participating in game jams is always a good opportunity to learn something new. I've done this on my own and collaboratively, working with separate sound people and artists to make a stronger finished product. I liked to participate in game jams with groups of younger students and pass on some of my experience to them, particularly Global Game where I've been an organiser for the Edinburgh jam site. In 2020 I created and presented a crash course on Unity development for game jams to get more participants confident enough to participate in Global Game Jam.

To get some experience using APIs I have made some discord bots, including some free work on a private discord bot for a client. Another public bot I have made let me experiment with the Reddit API via the Praw library. That project was also a great excuse to practice my practical database skills by making use of SQLite. This has given me experience in actively supporting custom software for users, including database maintenance.

I have a raspberry pi on which I host my personal website and tinker with some basic electronics hobby projects. I figure it helps widen my experience a little and is a nice change of pace from the types of projects I usually work with.

At university I found some leadership and responsibility in my capacity as a student rep for the student council. I have had to keep developing my communication skills to effectively liaise with the management staff to support students' needs and likewise to communicate decisions and changes back to the students. Having been in the position as a university staff member as well as a student I was well placed to help reconcile the inevitable differences in perspective.

I was president of the board games club at my university where I was responsible for organising events and controlling the oversight of the subscription money. This is another opportunity to constantly build on my people skills.

### REFERENCES

Ben Bamford – CEO of Leap Automation and parent company QLTech – <a href="mailto:ben.bamford@qltech.net">ben.bamford@qltech.net</a>

George Descalu – Senior software engineer at Leap Automation – <a href="mailto:george.descalu@qltech.net">george.descalu@qltech.net</a>

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Toran Richards – Game producer/owner of Significant Gravitas – toran.richards481@googlemail.com