# Luke Jackson

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## **PROFILE**

Computer Science with Game Development student at Northumbria University with a passion for game design and coding. I am eager to learn and am enthusiastic about taking on new challenges and dedicate my all once I am committed to a task. I have built on my course with a year's internship at EA Codemasters as a Technical Artist. Through this, I assisted multiple teams by making tools, troubleshooting, and debugging issues, and supported content creators. During my time as an intern, I have gained programming and game development knowledge reinforcing previous knowledge gained from university and extracurricular learning.

# **KEY SKILLS**

- Working knowledge of multiple programming languages such as C++ and Python.
- Experience in Unreal Engine with; Slate, Tools, Environments, Editor, Runtime and Assets.
- Experienced at working with teams designing and implementing new features and tools.
- Skills in 2D art and 3D modelling.
- Understanding of website design and development with HTML, CSS, PHP, and SQL

# **WORK EXPERIENCE**

### **EA Codemasters, Technical Artist Intern**

July 2023 - July 2024

- Gained experience working in Unreal, C++, Slate, Python and Houdini.
- Worked on EA Sports WRC creating tools and workflows for multiple teams.
  - Environment Artists creating tools to assist with asset and landscape creation.
  - Level Designers creating tools to assist with track creation and modification.
  - Created new and improved existing vehicle asset tools for Vehicle Artists.
- Created Python tools to assist both in and out of Unreal. For example, reworked a plugin generator
  which generates all the generic code required for different types of plugins.
- Created a working prototype tool in Houdini to assist in track creation across multiple teams.
- Helped to develop a profiling workflow allowing artists to get performance data easily. The previous method required waiting till the next day to get data, the new one takes an hour.
- Created a runtime tool to allow QA testers to easily determine the state of the physics in the game.
- Experience working in Jira and managing time of tasks.
- Used Perforce source control to manage all submissions in a large project.

## **EDUCATION**

## Northumbria University, Computer science with Games Development

**September 2021 – Present** 

- Full-time student.
- Worked in and lead multiple teams for research and development throughout my course, developing teamwork and leadership skills.
- Designed and created a shopping website in PHP and incorporated a SQL Server to manage data.
- Knowledge of AI with experience creating neural networks and analysing results in MATLAB.
- Designed and prototyped a mobile application for improving traffic safety.
- Created programs in Java utilising object-oriented features such as inheritance and encapsulation.
- Used C to learn about threads and multithreading by improving a system to control a simulated vehicle.
- Used Java to learn profiling and to increase performance of a test application.
- Completed group project to make a game in Unreal. Created a fully traversable environment and the interactive elements of the world such as puzzles, and earthquake which changes the level, and an erupting volcano which targets and damages the player.
- Created a procedural dungeon pathing generator in C++ with editable values and customizable features.

#### Northumbria University, Foundation Year in Computing and Information Technology

Sept 2020 - June 2021

- Developed remote working skills.
- Programmed customer service bot in the Python discord API.

June 2020

Kenton School Sixth Form - A levels: Maths - B, Biology - C, Physics - D, AS level: Further Maths - E

June 2018

Kenton School - 10 GCSEs at Grades 9-4

## EXTRACURRICULAR LEARNING

#### **Working at Codemasters**

- I competed in an EA organised machine learning competition where the goal was to create a ML bot to compete in a series of games against other player's bots. I did this in python and used NumPy and reinforcement learning to create and train it.
- I completed a first aid at work course.
- I attended a networking event called Interactive Futures with the company and spoke to members of other companies while staffing our stand.

#### **Online Courses**

- I have taken two C++ courses on GameDev.TV. One used a library called Raylib to gain fundamentals of game development and C++. The other was their unreal C++ course to gain an understanding of both Unreal Blueprints and C++.
- Udemy courses I have taken include: one to assist with Slate and unreal tools, one for procedural animation in unreal, A beginner UE5 course, and a Houdini course for procedural modelling.
- For 2D art, I have taken a beginner course for anatomy and figure drawing. I am currently taking an Art School course by Marc Brunet.
- I have completed multiple courses for Blender, 3D modelling, texturing, rigging and animation. Some were on GameDev.TV and some on YouTube.

#### **Competitions**

- Took part in a 3D modelling competition where teams were tasked with designing F1 cars. The cars were raced and as a team; we managed to get second place. Required good teamwork as there were five people working on one model. (2016)
- I have competed in private programming competitions with other students from university that we hosted to further develop our programming skills and allow us to adapt to using new languages. One of them had a goal to create a simple game. I created a roulette game with chips and all the different bets of a roulette table.

# OTHER EXPERIENCE, INTERESTS & HOBBIES

# Aspire Technologies, General Assistant – Work Placement

2017

- Worked in a variety of teams quickly learning the jobs and adapting to new working environments.
- Worked with client data, organising, and editing where needed and writing summary reports.
- On the installation team communicated with clients, travelled offsite to install, and repair systems.
- · Assisted stock room team receiving, organising, and dispatching client and company products.
- Built and repaired computers and laptops for other colleagues.

## Hobbyist 2D & 3D Artist

- Privately commissioned as a 2D artist with experience working with Procreate and Clip Studio Paint.
- Designed and manufactured multiple 3D models both for personal use and for commission.
- Communicated with clients and iterated on designs where necessary.

#### **PC Building**

• Solid knowledge of computer hardware. I have built multiple computers for both myself and others.

# Gaming

- I am a big fan of gaming and play many different genres of games.
- I have created a C++ game engine which handled input, 2D and 3D graphical output with OpenGL shaders, sprite animation.

References available upon request.