

Curriculum Vitae – Alexander Allman

Name: Alexander Stephen Allman

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Key Skills:

- Good communication skills
- Stakeholder management
- Problem solving, breakdown and organisation
- Continual professional development
- Engineering for real time and predictive solutions
- Khronos OpenXR contributions and participation.

Technical Experience:

- | | | |
|----------|------------------|----------|
| • C++ | • Unity | • Agile |
| • C# | • Unreal | • Docker |
| • Python | • Git / Git Flow | • JIRA |
| • Rust | • Linux | |
| • CMake | • Android | |

Experience and Education:

Oct 2022 – Present

Ultraleap – OpenXR Software Engineer

At Ultraleap I worked on the OpenXR API Layer implementation that took hand data from the underlying LeapC library and reformed it to be served via the *XR_EXT_hand_tracking* and *XR_EXT_hand_interaction* extensions. This reforming of the data included extrapolation for reduced latency, filtering to help reduce noise and jitter and rebasing those positions in a relative OpenXR space.

Key developments include:

- Cross platform support for Windows, Linux and Android.
- Good communication between front end tooling and lower level data source due to being middle of the stack.
- CI development to help automate testing and artefact generation
- Implementation of multiple filtering algorithms in order to make noisy data more stable.
- Contributions and weekly meetup with the OpenXR Working Group to help represent the hand tracking and interaction side of the standard.
- Developing implementations that follow strict ruling imposed by the OpenXR Specification whilst working with the rest of the tech stack.

Sept 2020 – Oct 2022

BT Security – Graduate Software Engineer

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Since graduating from university I have been working along the BT Security graduate training path. This has allowed me to develop further my skills significantly into a more software oriented domain.

Key developments include:

- Reverse engineering and Binary analysis.
- Server and Client communications via TLS.
- Test driven development and CICD for automated artefact creation and deployment.
- Chat client creation using C# and WPF.
- Unit testing and mocking.
- Setting up and using VMs for testing projects and learning how to leverage Ansible for an automated and consistent setup.
- Containerization through Docker.
- Soft skills through Insights training and group presentations.

Sept 2018 – Sept 2019

Mobile Pie – Junior Game Developer / Designer

As part of my Degree I worked an extended placement of 12 months as a Game developer and designer for Mobile Pie. I worked on various projects and worked as part of small teams in a highly iterative environment utilising an agile development methodology.

I worked on projects such as:

- Worst Witch 2 – BBC
- Journey to the World Cup 2022 – Edcoms
- Farming Technology Education Game – Syngenta
- Ethan Gamer App – For the Youtuber Ethan Gamer TV

Sept 2016 – June 2020

BSC (Hons) Games Technology

Graduated with a First Class Honours.

Key Modules:

- Advanced Technology – A module focused on newer and emerging technologies. This included developing a C++ Ray tracer from scratch, using Keras and TensorFlow to create an image classifier and procedural plant generation using DirectX.
- Creative Technology Project – A module which contained my dissertation. My dissertation leveraged a custom memory allocator and job system in order to gain Data Oriented Design performance benefits in an Object Oriented Workflow.
- Mobile Applications – A module which focused on the development process of mobile apps. In this I created an app which uses the Twitter API in order to fetch tweets from a set of specified handles, allowing the user to make custom groupings of related handles. This project leveraged the MVC design pattern.

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- Commercial Games Development – A module focused on teamwork and communication. In this module the entire cohort worked on a single project broken down into seven scrums. I acted as a scrum leader for my specific system but also more of a producer role for the entire project with another colleague.
- This Degree is an accredited course by TIGA.

Additional Information:

- Full UK driver's license and car for travel.
- Able to work remotely full time.

References:

Available upon request.