Curriculum Vitae – Alexander Allman

Name: Alexander Stephen Allman

Email: alexallmandev@gmail.com

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
- REST API architecture for Microservice environments

Technical Experience:

- C++
- C#
- Python
- Terraform
- CMake
- Javascript
- HTML / CSS
- Git / Git Flow
- Linux
- AWS / Azure
- Agile
- Docker
- JIRA / ADO
- SQL
- Mulesoft

Experience and Education:

Nov 2024 – Present

Principality Building Society – Software Engineer

Working alongside a scrum team to develop adoption of Open Bankings Variable Recurring Mandates into our current onboarding journey to enable customers to effortlessly save on a monthly cadence.

Key developments include:

- Working closely with PO to architect and design a solution that meets our user story requirements.
- Build integrations with third-party provider TINK for the feature, being the sole technical contact to liaise between PBS and TINK.
- Wrote up supporting documentation for development teams to be able to onboard if the feature is expanded upon in the future and information booklets for front line staff supporting the feature.
- Implemented the designed REST API Microservice solution via Mulesoft to fit with our current infrastructure.
- Implemented a front-end solution in Outsystems for remediation of mandate details.
- Work actively in the SQL and Mulesoft Communities of Practice within PBS to further our internal standards for more robust solutions.

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Sept 2024 – Nov 2024

Mo-Sys – C++ Software Engineer

Whilst a short tenure, at Mo-Sys I worked alongside the OpenTrackIO cinema standards committee to create a C++ Library to parse the new OpenTrackIO json packet format for use by companies looking to adopt the standard.

Key developments include:

- Building the project from scratch, utilising Cmake tooling to build the library with support for Conan.
- Worked from a JSON schema reference to architect and develop the library.
- Frequent feedback from Manager and committee voices to ensure smooth adoption for consumers of the standard.
- https://github.com/Xelarse/opentrackio-cpp

Oct 2022 – Sept 2024

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

Graduating from university I work along the BT Security graduate training path. This Developed 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.
- 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.

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This Degree is an accredited course by TIGA.

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Additional Information:

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

References:

Available upon request.