

# Thomas Lockie

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## Summary

Throughout my 14 years of experience, I have applied my skills to varying domains with consistent success with a personal focus on performant, optimal solutions tailored to the problem. I strive to understand the situation and I am resilient to adversity. I am very excited to continue to expand my programming skill sets and career growth and work with highly motivated, skilled, and supportive team members while building robust and measurable solutions within deadlines.

## Skills

**Languages:** Python, C#, C++, Kotlin, Typescript, Javascript

**Platforms:** Win32/64, Linux, Unix, MacOS, Android, iOS

**Technology:** Docker, Kubernetes, Helm, React, Kafka, Jenkins, Grafana, Elastic, MySQL/Postgres, WPF/Winforms

**Auxiliary:** System Design, Multithreading, CI/CD, Monitoring and Alerting, TDD/BDD, Agile Methodology, Microservices, DevOps

## Abilities

- Interpersonal communication skills
- Can lead and work within a team
- Well-versed in object-oriented programming
- Proactive worker in Agile methodologies
- Strong debugging, testing, and problem solving
- Mentoring experience
- Interviewer experience
- Liaising with members of other departments to escalate, discuss, and resolve issues
- Seek advice from peers and colleagues
- SDLC Advocate

## Projects

**Base CPP Project (C++, Python, CMake, Conan)** - A public GitHub template to use as a starting place for a C++ project. The template contains a basic folder structure with a testing framework, GitHub CI/CD actions of tagging, releasing, and packing on several platforms, and a clang-format and clang-tidy setup to provide linting and static analysis.

## Employment

**Sumo Digital, Remote - Lead Software Engineer, Build Team**

(March 2024 - Present)

**Tech Stack: C#, Python, Azure, Unity**

- Responsible for managing, prioritizing, and delegating work within a 5 person team to support a live service game designed for mobile and multi-console platforms.
- I have taken ownership of the entire studio's build pipeline infrastructure and begun improving resiliency, optimizations, monitoring and alerting for our build pipelines. The build success rate is now ~92% from 33% when I started.
- I'm working on further improving build time from multiple hours to minutes using caching techniques of git and C++.

**GResearch, London, UK - Senior Software Engineer**

(April 2022 - February 2024)

**Tech Stack: Python, Kotlin, C#, C++/C, Kubernetes, Kafka, MSSQL/Postgres**

- I used **Python**, **Jupyter Notebooks**, and **Pandas** to analyze external vendor data
- Refactored a legacy **C++** Market Feed to a **Kubernetes** and reduced **Jenkins** build times for our CI/CD deployments
- Refactored a **C#** simulation update service to our modern **Kubernetes** infrastructure with minimal impact on trading and replaced the proprietary HTTP server with a standard **C#** version
- Drastically reduced config boilerplate within our **C#** simulation update service to make start-up intuitive
- Proposed and executed a release process for the **C#** simulation update services that simplified releases and automatically notified the necessary teams

- Modified and implemented multiple **ETL** pipelines for the Quants.
- Within my 1st month, I was able productionize vendor data via our **Kotlin** pipeline and work with quants to validate it and instantly provide financial value to the company
- [Written articles for the company website](#)

**[Bloomberg](#), London, UK - Senior Software Engineer  
(September 2017 - March 2022)**

**Tech Stack: C/C++, Python, Typescript/Javascript, SQL, React, Kafka**

- Added features to our **Python** backend service within BVAL to help support Analyst workflows.
- Worked closely with stakeholders and clients to prioritize features and plan deliverables
- I was key in migrating **C++** systems to run on modern infrastructures and transitioning from **C++03** to **C++11/14** and reduced code bloat by 12% in the process
- Maintained Bloomberg's SPDL function which is a high-frequency, low-latency system that is queried millions of times a day
- Refactored our C++ authorization service for the FILE Bloomberg function to more modern C++ standards
- Educated and advised junior members of the team to improve and write complex code
- SDLC/SRE workgroup member and improved working practices within our immediate teams
- Improved testing and CI throughout our deployment pipeline
- Presented at conferences within the company

**[King](#), London, UK - Tools Programmer  
(April 2016 - September 2017)**

**Tech Stack: Python, C#, Unity**

- Created simulations of our card game Shuffle Cats to test game balancing using **Python**
- Tools programmer for three teams within London. Self organisation being key
- Developed bespoke tools for each team based on their requirements and worked rapidly and iteratively with constant feedback
- Added code coverage reporting to our built systems (including [Candy Crush](#))
- Improved data validation throughout the entire content pipeline of one of our games
- Added Unity front-end improvements to make tools more user-friendly

**[Gamesys](#), London, UK - Programmer  
(March 2013-April 2016)**

**Tech Stack: C/C++, Lua, Obj-C, Javascript, Java**

- Produced multiple revenue-producing slot games for our sites
- Set up our continuous integration & delivery pipeline for our game
- Implemented the audio system within our game using SOLID principles.
- Created a poker card game product to run on devices natively using **Lua** and **C/C++** writing an entire state system for the product
- Developed a game engine using an Entity Component System framework to support the game teams to build their game
- Mentored two interns to guide them through real-world application development
- Participated in high-level architecture discussions with the team and games studios

**[Codemasters](#), Birmingham, UK - Experienced Tools/Gameplay Programmer  
(November 2011 – March 2013)**

**Tech Stack: C/C++, C#**

- [Created a globally released game on all major consoles](#)
- Created a bespoke **C#** animation system to produce cut-scenes for our game that was used by other animators, artists, and game designers
- Implemented the cutscene animation system within the game
- Created **C#** UI analytics & and visualization tool for our designers to monitor and adjust AI behaviours within the game

**Headstrong Games, London, UK - Gameplay/Tools Programmer  
(May 2011 – October 2011)**

**Tech Stack: C/C++**

- [Created a game for teaching art on the Nintendo handheld console](#)
- Created and maintained **C#/C++** tools and workflows for artists/designers to create content for the game to reduce level creation time by 18%
- Implemented localization and tutorials within the game

**[Imagination Technologies](#), Kings Langley, UK - C/C++ Design Engineer (PowerVR Division)**

**(July 2010 – May 2011)**

**Tech Stack: C/C++**

- Created demos to showcase our hardware's capabilities
- Maintained tools to profile client applications and their use of our Graphics API
- Led other team members during significant development phases of our profiling application (PVTrace)

## **Education**

July 2010 | Bachelor's Degree | University of Derby | Computer Game Programming