

# Thomas Kiley

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*I am a freelance software engineer with 7 years of industry experience, including 3 years leading small technical teams. I am a strong communicator, with experience of working with stakeholders to design and deliver features in line with a roadmap. I write well-tested code, readable code in C++, Java, C# and Python. I have a 1<sup>st</sup> class honours degree in Discrete Mathematics from the University of Warwick.*

## Experience

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### Freelance Software Engineer

April 2020 - Present

**Working as an engineer on short to medium-term contracts** . My clients have included:

- Wargaming UK - Developing an automated testing framework in **C++** using **Unreal Engine**
- Diffblue - Leading consultancy team and managing the contract renewal for a large client
- Ultromics - Extending and re-engineering a **C# WPF** desktop application using **Entity Framework**

A full list of clients can be supplied upon request

### Diffblue

Oct 2016 - April 2020

- **Leading a cross-functional four-person team working on the core test generation engine.**
- Delivered critical product features in **C++**, (based on the open-source [CBMC](#)) and in **Java**.
- Working with stakeholders including the product owner to understand requirements and making sure the engineering tickets solve the real user problem
- Leading technical development of complex engineering tasks, including a modular “smart harness”.
- Fixing bugs across the codebase, along with adding automated tests so the bug cannot reappear.
- Tuned our code review process to ensure team members continuously learn from each other without getting bogged down in perfectionism.
- Actively promoting a culture of “if it isn’t tested (in CI), it doesn’t work”.
- Running fortnightly “1-2-1s”, setting quarterly goals and providing continuous feedback to team members so they were all able to grow.
- Handling various leadership responsibilities including running agile meetings, onboarding new team members and contributing to company road map planning.

### In Mind Games

July 2014 - Oct 2016

- **Sole programmer responsible for developing two games in Unreal Engine 4 in C++.**
- Implemented an ocean simulation based on Gerstner Waves that featured a translucent ocean and a physics-driven buoyancy model.
- Prototyping a game in **C#** using **WinForms**.
- Working independently and remotely.

## Born Ready Games

July 2012 - July 2013 (Intercalated Year)

- **Released Strike Suit Zero** - <http://store.steampowered.com/app/209540>
- Developing features and fixing bugs in **C++** and **Lua** within the context of the (in-house) game engine.

## doublesix games

September 2010 - January 2012 (Holiday Employment)

- Created some tools in **C#** for the in house engine including a level editor, a particle system editor and material designer similar to that found in Unreal Engine.

References are available upon request

## Education

<b>University of Warwick</b> 2010 - 2014	1st Class Honours BSc in Discrete Mathematics with Intercalated Year <i>Discrete Mathematics is a joint degree run by the Computer Science and Mathematics departments.</i>	
<b>Guildford County School</b> 2003-2010	<b>A-Levels:</b>	2 A*s (Further Mathematics, Computing), 1 A (Mathematics), 1 B (Physics)
	<b>AS-Levels:</b>	1 A (History)
	<b>GCSEs:</b>	2 A* (Maths and Science), 5 As (including French) and 2 Bs

## Projects & Technologies

I have worked on a number of personal projects. These have included games, apps and tools. I've done these both on my own, and as part of a team. I have used a variety of tools and technologies, including **Android**, **Unity3D**, various **third party APIs** and **Google Cloud**.

You can read about some of the projects I have done at <http://www.tkiley.co.uk> or on my github profile at [github.com/thk123](https://github.com/thk123)

I am familiar with a wide range of tools, using them in both professional and hobby settings. I have used **CLion**, **Visual Studio**, **IntelliJ** and other IDEs. I am familiar with several source control solutions, including **Perforce** and **Git**. I have used **JIRA** and **Trello** for project management. I am comfortable in both **Windows** and **Linux** environments. I have used a number of CI systems, in particular, **Travis**.

## Other Interests

In my spare time, I organise and campaign for the Green Party. I also frequent StackOverflow (<http://stackoverflow.com/users/958004/t-kiley>) as I enjoy finding new problems and helping people solve them. I set up and help run a Code Club in our local library teaching children Scratch and Python.

I like to go cycling, see live music (when there isn't a global pandemic in progress!) and play board games with friends.