

BLAIR CROSS

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I am a disciplined, structured and methodical Software Engineer. I am also an innovative and inventive problem solver, passionate about blending function and design into high quality products and solutions. I have strong people skills and I work well in teams both as a member and a leader.

EDUCATION.



University of St Andrews (2018-23);

- ↳ Computer Science (MSci).
- ↳ Target: 2:1 / 1st.

AWARDS.



- ↳ Deans list x3 - **University of St Andrews.**
- ↳ Dux - **Rothesay Academy.**

TECHNICAL SKILLS.



Programming;

- ↳ C#.
 - ↳ ASP.NET.
 - ↳ Unity.
 - ↳ AR Foundation.
 - ↳ Unity Test Runner.
 - ↳ Nunit, NSubstitute, Moq.
- ↳ Java.
 - ↳ Spring Boot.
 - ↳ JUnit, Mockito, Podam, WireMock.
- ↳ C.
- ↳ C++.
 - ↳ Unreal Engine 4.
- ↳ Python.
 - ↳ Numpy, Pandas.
- ↳ Javascript.
 - ↳ Node, React, Next, Loopback.
- ↳ Databases.
 - ↳ MySQL, SQLite, Postgres.
 - ↳ MongoDB, CouchDB.
 - ↳ SPARQL.
- ↳ CI/CD.
 - ↳ Docker.
 - ↳ NGinx.
 - ↳ Github Actions.

Technologies and tools;

- ↳ Microsoft Office Suite.
- ↳ Google Drive Suite.
- ↳ Atlassian Suite.
 - ↳ Jira, Confluence.
- ↳ Adobe Illustrator.
- ↳ Affinity Publisher, Designer.
- ↳ Version Control Systems.
 - ↳ Git & Github, Bitbucket and Gitlab.
 - ↳ Perforce.
- ↳ VSCode, Visual Studio, JetBrains Suite.

WORK EXPERIENCE.



Intern Software Engineer - JP Morgan Chase, Remote (Summer 2021);

- ↳ Enabled a critical step forward in the product road map by working together with another intern to build a data bridge in **Java** that opened access to extremely valuable data.
- ↳ Reduced onboarding times by days by building a tool in **Java** that created customised forms pre-filled by existing product data.
- ↳ Worked on a project between JPMC and nonprofit Make It Happen to create a toy trading app aimed at teaching children how to code.

Augmented Reality Engineer - Whereverly, Remote (Sept-June 2021);

- ↳ Developed the first AR app in Scotland that recreated historical sites in **C#** and **Unity**, with interactive storytelling.
- ↳ Built the initial prototype in 2018 as a student contractor, and was asked to return in 2020 to build the final AR application.
- ↳ Innovated interaction techniques with AR/VR hybrid prototypes.

Intern Software Engineer - Gearset, Remote (Summer 2020);

- ↳ Improved the deployment success rate by almost 10% by teaming up with another intern to build a feature in **C#** with **ASP.NET** that checked for common deployment errors.
- ↳ Directly interacted with several users to diagnose their issues, and implemented fixes to solve their problems.
- ↳ Contributed to weekly roadmap meetings, proposing features and bringing attention to encountered user issues.

PROJECTS.



Utility Tree AI - AI Framework (Winter 2020 - Ongoing);

- ↳ Currently developing a real-time AI Framework in **C++** that combines behaviour trees and utility AI to produce a system that allows structured behaviour while running dynamic context-sensitive behaviour in parallel.

Innovate Week Hackathon (Summer 2021);

- ↳ Came 9th place out of 47 during JP Morgan's Innovate Hackathon by working with 4 other interns to build a prototype career networking app.

Biotin - Federated Social Network (Autumn 2020 - Spring 2021);

- ↳ Lead a team of 5 to design and implement a federated social media platform in 8 months for a Uni project, powered by **React**, **Loopback 4** and **MongoDB**, which achieved a first class grade.

Google HashCode (March, 2019);

- ↳ Came 5th place in St Andrews and top 20% in the world during Google's Hashcode hackathon.

Downward Dungeon - Video Game (2018/2019);

- ↳ Developed and released a mobile game called Downward Dungeon written in **C#** and **Unity** that went on to receive **1.4k hits**.

Standalone - Video Game (2018);

- ↳ Achieved an A grade for my advanced higher CS project, by developing and releasing a game called Standalone, which is a stealth shooter with state based AI written in **C#** and **Unity**.

GameOps - Blender Plugin (Aug, 2019);

- ↳ Developed a suite of **Python** tools for Blender, cutting the time spent on the high to low poly stage of the workflow by 30% on average.

AIMGUI - Unity Editor Extension (2018/2019);

- ↳ Developed an editor extension for **Unity** using **C#** that allows classes to display information on the game window GUI, currently available for free on the Unity Asset Store.