

Cathair Mac an Bheatha

Edinburgh | cathairmab@gmail.com | 07340 502662 | <https://cathairmab.vercel.app>
linkedin.com/in/cathair-mac-an-beatha | github.com/cathairmab

Summary

First-Class Computer Science graduate from Heriot-Watt University with a passion for creative, user-focused development. Experienced in building interactive games, mobile apps, and full-stack web platforms using technologies like React, Unity, and SwiftUI. Known for being a strong team player, fast learner, and confident communicator, both in academic and real-world environments.

Education

Heriot Watt University, BS in Computer Science

Sept 2021 – May 2025

- **Grade** First Class Honours (1:1)
- **Awards** Deputy Principal's Award (2024-2025)
- **Modules** Data Mining and Machine Learning (73%), Software Engineering (71%), Computer Games Programming (71%), Data Structures and Algorithms (78%), Hardware Software Interface (80%)

Projects

InductEDU - 4th Year Project

github.com/cathairmab/campus-induction-app

- Developed a mobile app to guide new university students around campus using gamified location-based challenges and AR interactions.
- Integrated GPS and ARKit to unlock building-specific quests, quizzes, and animations triggered at real-world locations.
- Created a 2D avatar guide with speech-bubble tutorials and dynamic waypoint system, later ported to React Native for Android support.
- Backend powered by Supabase, enabling real-time marker creation, user progression tracking, and cross-device syncing.
- Tools Used: SwiftUI, MapKit, CoreLocation, ARKit, React Native, Supabase

ChronoCrypt

nusnus.itch.io/chrono-crypt

- Designed and developed a first-person puzzle exploration game where players manipulate time to solve complex environmental challenges.
- Implemented a dynamic rewind system with visual feedback using custom clock UI and shader-based effects.
- Built gameplay features around time-based puzzles, including objects aging, resetting, or progressing across timelines.
- Tools Used: Unity, C#

Third-Year Group Project – Full-Stack Web Application

Code available upon request

- Collaborated on a team to design and build a full-stack web application using React for the front end and Node.js for the back end.
- Developed RESTful APIs to interface with a cloud-hosted MySQL database on Microsoft Azure.
- Integrated Azure services including App Services and Deployment Center for CI/CD and scalable hosting.
- Focused on clean UI/UX design, secure data handling, and modular component development.
- Tools Used: React, Node.js, Express, MySQL, Azure App Services, Git

Experience

Bartender, Kitty O'Sheas – Edinburgh

Aug 2022 – Aug 2023

- Delivered friendly, fast service in a high-volume city centre bar
- Handled cash/card transactions, balanced tills, and maintained bar hygiene
- Supported team coordination during busy shifts and opening/closing routines

Volunteer Tutor

Various Dates

- Tutored junior students in Maths and Computer Science for their National 5's and Highers
- Mentored youth in James Gillespie's Pipe Band; developed leadership and teaching skills

Technologies

Languages: JavaScript, TypeScript, C#, Python, SQL, HTML/CSS, Java

Tools & Frameworks: React, Node.js, Express, Unity, React Native, SwiftUI, ARKit, Supabase, Azure, Git, Eclipse

Additional Skills

Soft Skills: Teamwork, clear communication, fast learner, problem-solving under pressure, time management, adaptability