

Chris Perceval-Maxwell (he/him)

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About Me

I'm in my final semester at Edinburgh University studying Artificial Intelligence and Computer Science. I've been a competitive swimmer for over a decade and swam at a national level for 6 years, represented Edinburgh University and Scottish universities. I'm also a qualified lifeguard, qualified in lifesaving, first-aid and the external defibrillator (AED).

Skills

Programming	Java, Python, Haskell, MATLAB, Bash
Web Development	HTML / CSS, SCSS, JavaScript, Node.js (with Express and Handlebars), Bootstrap, Foundation
Other Languages	MySQL / PostgreSQL, Isabelle Proof Assistant, PDDL
Frameworks	Anaconda, NumPy, Pandas, Matplotlib / Seaborn, Scikit-Learn
Tooling	Git, Heroku, Docker
Software	Figma, Photoshop CS6

Experience

Dog Digital

Glasgow, SCOTLAND

WEB DEVELOPER (INTERN)

Jun. 2015

- I sourced my own company for work experience. I focused on backend development as this was one of my weaker skills that I wanted to improve. I also improved my frontend competency and got the chance to sit-in on team meetings.

Education

The University of Edinburgh

Edinburgh, SCOTLAND

BSC (HONS) ARTIFICIAL INTELLIGENCE AND COMPUTER SCIENCE

Sept. 2018 - May 2022

Predicted First Class

- OOP, Functional and Procedural programming
- Machine Learning and Neural Networks
- Linear Algebra, Calculus, Probability and Discrete Mathematics
- Logic, Automated Reasoning and Proof Assistants / Theorem Provers
- Multiple projects working in both small and large teams

Extracurricular Activity

Edinburgh University Swimming and Water Polo Club

Edinburgh, SCOTLAND

SPONSORSHIP & FUNDRAISING OFFICER

Sept. 2021 - Present

- I negotiated with two local bars to sponsor EUSWPC for the academic year – this will fund paying for pool time, coaches, travel to competitions, etc.
- I led the club's Movember campaign created a 2022 calendar featuring some of our club members, with all proceeds also going to 'Health in Mind' – an Edinburgh based mental health charity. In total, we raised over £600.
- Currently leading a week-long blood drive in association with GiveBlood4Good and in charge of all social media posts.

Edinburgh University Swimming and Water Polo Club

Edinburgh, SCOTLAND

SOCIAL SECRETARY

Sept. 2020 - May 2021

- I organised online social events for our club, of over 150 members, during the height of the Covid pandemic.
- I led the club's Movember campaign and managed all social media posts. In total, we raised over £1000 for Health in Mind.

Edinburgh University Swimming and Water Polo Club

Edinburgh, SCOTLAND

MEN'S CAPTAIN - CLUB SQUAD

Sept. 2019 - May 2020

- I captained a squad of more than 20 swimmers for university swimming matches

Projects

Nicer Proofs By Induction in the Holbert Proof Assistant (Honours Project)

Edinburgh, SCOTLAND

THE UNIVERSITY OF EDINBURGH (SUPERVISED BY LIAM O'CONNOR)

Sept. 2021 - Present

[HASKELL](#) [HTML](#)  [chrisjpm/holbert](#)  Holbert Demo

- Holbert is a web-based, interactive proof assistant built on higher-order logic and natural deduction. It is written in Haskell and rendered in-browser with the Miso front-end framework.
- Holbert's primary focus is to be an educational tool for students and promote teaching of the foundations of programming languages for users with no prior experience in automated reasoning.
- My contribution to this project is implementing features to improve proofs by induction.

Text Technologies for Data Science

Edinburgh, SCOTLAND

THE UNIVERSITY OF EDINBURGH

Sept. 2021 - Present

[PYTHON](#) *GitHub repos private, available upon request*

- Assignment 1: A simple IR tool that pre-processes text, creates a positional inverted index. Using the positional inverted index, perform boolean search, phrase search, proximity search and ranked IR based on TFIDF.
- Assignment 2: IR evaluation, text analysis and text classification.
- Grade: **95.67% (A1)** (In progress)

Human Computer Interaction

Edinburgh, SCOTLAND

THE UNIVERSITY OF EDINBURGH

Sept. 2021 - Dec. 2021

[FIGMA](#)  Prototype 1  Prototype 2

- Create an interactive prototype that improves the UX of Edinburgh University's 'Learn' site for certain tasks.
- Grade: **68% (B)**

System Design Project

Edinburgh, SCOTLAND

THE UNIVERSITY OF EDINBURGH

Jan. 2021 - April 2021

[HTML](#) [CSS](#) [JAVASCRIPT](#) [FIGMA](#) [PHOTOSHOP CS6](#) [PREMIERE PRO CS6](#)  DeliverED-Home  Product Website

- In a group of nine students, we were tasked to design and implement a complete system to solve some practical and useful problem. This entailed a convincing demonstration of a potential product, suitable for presentation to a client/investor.
- I was the co-product manager and graphic designer. I wrote and edited 7 reports, created 5 videos, designed all graphics and made the website to demonstrate our product. I also conducted usability testing for our Android app using a Figma prototype and a scripted interview with five participants.
- Grade: **68% (B)**

Informatics Large Practical

Edinburgh, SCOTLAND

THE UNIVERSITY OF EDINBURGH

Sept. 2020 - Dec. 2020

[JAVA](#) [GEOJSON](#)  [chrisjpm/inf3-ilp-cw1](#)  [chrisjpm/inf3-ilp-cw2](#)

- Assignment 1: A heat map to visualise the predictions of air quality sensor readings, partitioned into a regular 10x10 grid.
- Assignment 2: Develop an application which calculates a flight path which visits as many of the sensors listed for that date as possible. The application produces a report on the drone's flight as a Geo-JSON map and a log file.
- Grade: **95% (A1)**