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

Honours Project - Nicer Proofs By Induction in the Holbert Proof Assistant

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 - Information Retrieval

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 - Learn Design

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 - DeliverED Home

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 - Air Quality Drone

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 10×10 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)**

Advanced Higher Computer Science - Swimming Relay Order Calculator

Glasgow, SCOTLAND

Shawlands Academy *Oct. 2017 - June 2018*

HTML CSS JAVASCRIPT NODE.JS EXPRESS HANDLEBARS MYSQL GOOGLE CLOUD HEROKU chrisjpm/Swimming-Relay-Order-Calculator

- The user can enter swimmers' details and personal best times via completing a form on the site and then detail the requirements of a relay team, select which swimmers they want to include (by age and gender). They'll receive a report on different combinations of swimmers and strokes with their total time (sorted fastest to slowest). The report can be downloaded as a CSV.
- Grade: **100% (A1)**