Chris **Perceval-Maxwell** (he/him)

COMPUTER SCIENCE • ARTIFICIAL INTELLIGENCE • FULL-STACK

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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

DogDigital *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

- Programming: OOP, Functional, Procedural Machine Learning and Neural Networks
- Mathematics: 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 be an immense help in paying for pool time, coaches, travel to competitions and much more.
- I led the club's Movember campaign, raising over £300 for 'Health in Mind' - a locally based mental health charity in Edinburgh.
- I organised and created a 2022 calendar with photographs of some of our club members, with all proceeds also going to Health in Mind. In total I sold over 45 copies, which raised £315.
- Currently leading a week-long blood drive in association with GiveBlood4Good and all social medoa 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)**

Licenses & Certifications

Royal Life Saving Society UK - RLSS UK
Larkhall, SCOTLAND

IQL LEVEL 2 AWARD IN POOL LIFEGUARDING, INTERVENTION, SUPERVISION AND RESCUE AND AUTOMATED EXTERNAL DEFIBRILLATOR
Jul. 2019 - Jul. 2021

- app.credcert.co.uk | ID: 1488662

Royal Life Saving Society UK - RLSS UK
Larkhall, SCOTLAND

IQL LEVEL 2 AWARD IN - AED
Jul. 2019 - Jul. 2021

- app.credcert.co.uk | ID: 1488663

The Duke of Edinburgh's Award
Glasgow, SCOTLAND

DUKE OF EDINBURGH BRONZE AWARD
Aug. 2016

Awards

2019	**2 x Silver**, 50m Breaststroke and 4x50m Medley Relay at Celtics Tournament	*Cardiff, WALES*
2018	**Bronze**, 50m Breaststroke at Scottish Student Sport Swimming Championships	*Glasgow, SCOTLAND*
2014	**Bronze**, 2KM Scottish Gas Scottish Open Water Swimming Championships	*Loch Venachar, SCOTLAND*
2013	**Black Belt (2nd Dan)**, Karate-do Shotokai Karate	*Loch Lomond, SCOTLAND*