

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

WEB DEVELOPER (INTERN)

Glasgow, SCOTLAND

Jun. 2015

Education

The University of Edinburgh

BSc (HONS) ARTIFICIAL INTELLIGENCE AND COMPUTER SCIENCE

Edinburgh, SCOTLAND

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
- Currently working on my Honours Project: Nicer Proofs by Induction in the Holbert Proof Assistant, with my supervisor Liam O'Connor ([GitHub](#)).

Extracurricular Activity

Edinburgh University Swimming and Water Polo Club

SPONSORSHIP & FUNDRAISING OFFICER

Edinburgh, SCOTLAND

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.

Edinburgh University Swimming and Water Polo Club

SOCIAL SECRETARY

Edinburgh, SCOTLAND

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

MEN'S CAPTAIN - CLUB SQUAD

Edinburgh, SCOTLAND

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

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. This wrote and edited reports, created four demo videos and made the final website to demonstrate our product.
- I conducted usability testing for our Android app using a prototype created with Figma and ran 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

Jul. 2019 - Jul. 2021

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

Royal Life Saving Society UK - RLSS UK

Larkhall, SCOTLAND

IQL LEVEL 2 AWARD IN AUTOMATED EXTERNAL DEFIBRILLATOR - 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 - Never