# 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 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

JANUARY 19, 2022

C. PERCEVAL-MAXWELL . CURRICULUM VITAE

**Projects** 

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

Edinburgh, SCOTLAND

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

HASKELL HTML Ochrisjpm/holbert Holbert Demo

Sept. 2021 - Present

- 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

- 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

Sept. 2020 - Dec. 2020

THE UNIVERSITY OF EDINBURGH

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)

# **Licenses & Certifications**

#### **Royal Life Saving Society UK - RLSS UK**

Larkhall, SCOTLAND

 ${\sf IQL\ Level\ 2\ Award\ in\ Pool\ Life guarding, Intervention, Supervision\ and\ Rescue\ and\ Automated\ External\ Defibrillator}$ 

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 × Silver, 50m Breaststroke and 4×50m Medley Relay at Celtics Tournament	Cardiff, WALES
2018	<b>Bronze</b> , 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