Stuart Brown DOB: 08/04/00

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Education

University of Strathclyde – MSc Satellite Data for Sustainable Development with Distinction – January 2023 to December 2023

Core Modules: Satellite Data Assimilation & Analysis, Satellite Applications for Sustainable Development Goals, Machine Learning for Satellite Data, Geographical Information Systems, Big Data Fundamentals, and Big Data Tools and Techniques. During these modules I became proficient in using Python, Google Earth Engine, Machine Learning packages, ArcGIS Pro, ArcGIS Online, QGIS and was introduced to SQL and NoSQL relational databases.

My individual project entailed creating a machine learning model capable of providing an avalanche forecast for Scotland. This was achieved by compiling data of avalanches recorded in Scotland from 2009 to 2022 and matching them to the avalanche forecast of the same date. Using Google Earth Engine a series of satellite images were used to sample geological and meteorological data corresponding to each avalanche. From this a series of classification algorithms were trained to find the best performing model, which could be used to predict avalanche danger. The project involved significant data refinement, manipulation, and conversion between formats.

University of Glasgow – Physics, BSc Hons – September 2018 to June 2022

Stewart's Melville College – 8 National 5s, 5 Highers, 3 Advanced Highers – August 2009 to June 2018

Level 1 Qualified Tennis Coach, LTA Competition Organiser

Work Experience

June to December 2022 – Space Intelligence – I was part of the Mapping Team where my role included collecting data to create habitat and canopy cover maps, reviewing existing data samples to ensure accuracy and quality, quality checking habitat maps and near the end of my time at the company I was tasked with the creation of habitat maps. I developed my skills with python, was introduced to machine learning and became skilled at using GIS software.

July to December 2021 – Showsec – I spent the summer as a key worker at a vaccine centre in Edinburgh, where my responsibilities included working alongside NHS staff, organising the flow of the centre, and ensuring that the overall safety of the vaccine centre was maintained.

July 2019 – Ravelston Sports Club - I spent four weeks co-leading a tennis camp for ages 7 to 15; I devised drills to keep the pupils entertained and invested in the lesson. I was in charge of course attendance and pupil safety.

October 2017 to 2022 – Henderland Road Tennis Club – I worked as a tennis coach for over four years at my local club where my responsibilities include guiding the children, devising lesson plans, and organising courts.

May 2017 – Glasgow University Optics Department – I spent 7 days working in a physics lab at the University of Glasgow where I worked with 3D printers to produce an acoustic spanner for an experiment, culminating in a named citation in the scientific paper produced for the experiment.

May 2016 – European Space Agency HQ, Paris – I spent a week with the European Space agency in Paris, learning about the business side of the corporation, how the various countries involved cooperate as well as the physics behind all varieties of spacecraft. This provided a great insight into a working corporation as well as learning to work with people who spoke other languages.

Other

Linkedin - https://www.linkedin.com/in/stuart-brown-2b33542bb/

GitHub - https://github.com/stuartbrown4

References

Nicholas Waldron, European Space Agency – <u>Nick.waldron@esa.int</u>

Andrew Newton, CEO Linkwave - <u>andrew.newton@btinternet.com</u>