

SAMUEL (SAM) HATFIELD

Data Analytics and Mathematics Graduate. UK Citizen with permanent US residency moving to the Seattle area in June 2021

✉ s.j.hatfield@live.co.uk

📍 Seattle, WA

🌐 sjhatfield.github.io

📄 sam-hatfield

🔗 sjhatfield

EDUCATION

Georgia Institute of Technology

Masters of Science: Analytics

📅 Sep 2019 - 2021

📍 Georgia, USA

- Current GPA: **4.0/4.0**
- Classes: Computational Data Analysis (Machine Learning), High-Dimensional Data Analytics, Bayesian Statistics, Simulation, Reinforcement Learning and Data Visualization Analytics, Business Fundamentals for Analytics

Goldsmiths, University of London

Postgraduate Certificate in Education (Mathematics)

📅 Sep. 2012 - July. 2013

📍 London, UK

University of Warwick

MMath Master of Mathematics

📅 Sep. 2008 - Aug. 2012

📍 Warwick, UK

- Graduated with Honors, **1st Class**
- Four-year Bachelors and Masters combined program
- Focus of Graduate Study: Topology and Manifolds
- Presented masters topic "Poincaré Dodecahedral Space", to the British Society for the History of Mathematics at Oxford University, March 2012

Foothill College

Standalone Computer Science Courses

📅 April. 2018 - Dec. 2018

📍 California, USA

- CS 003B Intermediate Software Design in Python
- CS 031A Database Management Systems

MOOCs

Online Certifications

📅 Mar. 2017 - Forever

📍 Various

- Fast.ai: Deep Learning for Coders
- CS50 Introduction to Computer Science. Harvard, USA
- Object-Oriented Programming with Java Part I and II. University of Helsinki, FI
- Algorithms and Data Structures Part I, II and III. Stanford, USA

TECHNICAL SKILLS

Python

SQL

R

Jupyter

NumPy

Pandas

Scikit-learn

XGBoost

PyTorch

git

GCP

Linux

d3.js

EMPLOYMENT

Freelance Data Science Work

📅 Aug. 2020

📍 Online

Solved clients task of automating a lawnmower to cover a rectangular area. Transitioned the client from a DQN model to a standard Q-learning model which suited their state space, solved the problem in under 1,000 episodes and simplified their environment implementation.

HS Mathematics and Programming Teacher

International School Manila

📅 Aug. 2015 - June. 2019

📍 Manila, PH

Secondary Mathematics Teacher

Greengates School

📅 Aug. 2013 - Jul. 2015

📍 Mexico City, MX

DATA PROJECTS

All can be found on my blog and github profile

Skin Cancer Detection

- Ensembled a convolutional neural network model (EfficientNet architecture) with a gradient boosted model on the metadata. First Kaggle contest entered and achieved top half finish
- Trained on Google Cloud platform using PyTorch using deep learning techniques such as: image augmentations, test time augmentations, learning rate schedule, weighted random sampling, frozen epochs and early stopping

Used Car Purchase Helper

- Leveraged Craigslist and scraped car data to build a machine learning powered application to give guidance on whether a used car listing is a good deal
- Model was put into production as a web app using Flask and hosted on a remote Linode server

COVID-19 College Reopening Visualization

- Presents COVID-19 county level data in an interactive d3.js visualization
- Counties are clustered and then features selection takes place in correlation with COVID-19 case numbers
- After user selects county or college, most similar are shown so that college reopening strategies can be assessed with respect to how they influenced COVID-19 cases in the immediate area