

Alexander Carter

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Education

St Andrews MSc Artificial Intelligence: Merit	2021-2022
• Dissertation: Predicting the product of chemical reactions with a range of molecular encodings	
University of Bath BSc Mathematics: 2:1	2017-2020
• Bath Gold Scholar (1 of 50 selected)	
Pearson College UWC - full scholarship (2 out of over 1000 applicants)	2015-2017

Relevant Experience

Google Developers Club	2021-2022
Google Bold Immersion programme	07-10/2020
Charisma.ai: Freelance work	06-07/2020
Teaching Python: Classes of up to 50 undergraduates, from basics to building an automated trading bot	2018-2020
• Designed a 20 hour interactive course, alongside occasional homework notebooks	06-09/2019
Jump.work: Sentiment analysis, text similarity, machine learning, database exploration	
• Improved targeting accuracy from an f1 score of 1.8% to 53.5%	
• Automated categorisation of customer service emails with weekly self-generating analysis reports	06/2018
University of Bath: Built a database, and led an independent research study	2014-2017
GFC Economics: Involved teamwork, report writing, creative thinking and market analysis	02-03/2017
Led a team of private researchers: Successfully grew client base for 'Vancouver Writers' Exchange	06/2014
The MET Office: Utilised Python to form weather models and presented ideas on improving outreach	

Personal Projects

Poker game: Web application to play against adaptable AI, with reinforcement neural network
Puzzle Solver: Using convolutional line detection, contour and colour matching to beat out CNN's
Dog Training: Trained a CNN to classify dog posture to 99% acc, and built a treat release mechanism
Compact Security Camera: Arduino controlled, with motion detector, web app and email notifications
Automated Trading: Scrapes football odds and results, XGBoost predicts best ROI, Selenium places bet
Debate bot: Scraping and automating across platforms, utilising NLP and GPT-2 and a news api

Additional Experience

Young carer: Looking after older sister, who suffers from OCD, dyslexia and is on the autistic spectrum	2013-Pres
Volunteering: Music festivals with Oxfam, caring for the incapacitated	2017-2019
Finance Society Secretary: Weekly newsletters, market outlook sessions, organising a conference	2017-2018
TEDX talk: Flaws of the UK mental health services	01/2017
Formed and chaired a Current Affairs group: Led a week of workshops at local school	2016-2017
The SCA: Cutting trails in Alaska, cleaning culverts in Michigan, building bridges in Tennessee	2015-2017
Tutoring kids: Providing academic assistance to struggling kids	2014-2015
National finals for the UKMT	2014

About Me

Technical Skills	Python · Java · Pytorch · Tensorflow · OpenCV · Django · SQL · AWS · Scraping
Languages	French · semi-fluent in Dog
Interests	Poker · Chess · Writing · Screenwriting · Running with dog