

Full stack software engineer. Focus on Machine learning and Data Science.

Programming

- Coding for 5 years. Completed a 6 month internship in a Data Science role for a tech startup finance app.
- Bachelor’s degree in Acoustics - used MATLAB, C++ and C# for digital signal processing applications.
- Written machine learning models using Tensorflow Keras and PyTorch to run on cloud servers or locally.
- I can deliver a shareable ML model using Google Colab which runs in the browser and updates with new training data.
- ML capabilities including image recognition, audio classification, tabular data, word embeddings, random forests, collaborative filtering.
- Used tools and design principles : Git, Trello/Linear, Slack, Agile, SOLID, DRY.
- Knowledge of full stack web technologies including Django.
- **Languages:** Python - Javascript - Linux/UNIX – Django - HTML - CSS - Bootstrap – MATLAB - C++ - C# - Arduino.
- **Recent projects:** [physics simulations](#), [autonomous agents](#), [compression algorithm](#), [puzzle games](#), [genetic algorithms](#), [machine learning](#), [automate excel tasks](#)
- **Online Courses**
- [Nature of code – Processing Foundation](#) (Oct 2018 - Present)
- [Python and Django Full Stack Web Developer Bootcamp – Udemy](#) (Sep 2019)
- [Fast.ai machine learning - University of San Francisco](#) (2019 - present)
- [Google machine learning crash course](#) (completed in Oct 2019)

Employment History

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|--|---|
| <a href="#">Easy Expense</a><br><b>Machine Learning &amp; Data Science intern</b><br>December 2021 - July 2022 | Worked on a large set of NLP and statistical problems to improve the receipt scanner in a finance app. Worked with a large database of noisy scanned receipt text. Developed a variation of naive bayes classification to predict category and vendor, delivering an improvement from 40% to 80% accuracy for each of these categories. |
| Serac Exploration<br><b>Field Assistant - contractor</b><br>July 2021 - October 2021                           | Remote exploratory field work - prospecting for minerals in northern BC. Digitizing maps using QGIS geographic information system software.   |
| Ground up Climbing Centre<br><b>Front Desk</b><br>Nov 2020 - present   | Front desk customer service work and helping with youth programs  |
| Awesome Walls Climbing Centre -<br><b>Front Desk and Youth Coach</b><br>November 2019 - March 2020             | Designing and delivering a youth coaching program, setting routes and working the front desk.   |
| Eldon Tools and Engineering<br><b>CNC Programmer setter</b><br>Feb 2019 – May 2019                             | Programming and setting Citizen CNC Lathes – sub contracting.   |
| Nov 2016 – Jul 2018  | Rock guiding and Ski instructing.   |
| Nov 2013 – Nov 2016  | Rock climbing instructor in the UK at a local gym.  |
| Dinex Clamps LTD<br><b>CNC Programmer Setter</b><br>Apr 2016 - Oct 2016  | Programming and setting Citizen CNC sliding head lathes – automotive industry – large batches.  |
| Totally Wicked Engineering<br><b>CNC Programmer Setter</b><br>Nov 2013 - Apr 2016                              | Programming and setting Citizen CNC lathes – electronic cigarettes – prototyping and manufacture. Additional duties: parts washing, polishing and soldering.  |
| Dinex Clamps LTD<br><b>Production operative</b><br>Jul 2012 - Nov 2013   | Setting and operating pneumatic presses and spot welders.   |
| HJB Communications<br><b>Electronic Service Engineer</b><br>2010 - 2011  | Diagnosing and repairing electronic faults in pro-audio equipment.<br>Worked as part of a busy London team.   |

Education

**BSc (Hons) Acoustics -University of Salford** (2007 - 2012)  
MODULES STUDIED INCLUDE: Electronics, Mathematics (calculus, statistics and applied), Programming, Computer Simulation, Digital Signal Processing, Acoustics and Electroacoustics, Speech Technology, Room Acoustics.  
Achieved Second Class Honors degree.

**St Mary’s College, Blackburn** (2004 - 2007)

A LEVELS- Mathematics (B) Physics (B) Music Technology (B) Electronics A/S (A)  
**Ribblesdale High School Technology College, Clitheroe** 10 GCSEs A\* - B (1999 - 2004)

**Interests – climbing** - I am an active mountaineer and rock climber. The sport has improved my skills in goal setting and personal organization, risk assessment and dealing with developing situations. Worked with children and adults in instructor roles, indoors and out.  
**Other interests** - Music and playing musical instruments including guitar, keyboard and accordion. Mountain biking, running, skiing, reading science fiction and non-fiction.