Mattias Cross

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PERSONAL STATEMENT

Computer Science student interested in pursing a career in the field. Motivated to learn from others and contribute to solving a wide variety of problems. Diverse education with a wide array of modules ranging from engineering to theory including many team projects.

PROJECTS

STANFORD ILABS RPI PROJECT

Sep 2021 – Present | University of Sheffield

- Using Raspberry Pi cameras to set up experiment variables then activating multiple cameras at once then creating a CSV of the variables and their corresponding photos.
- Highly independent, hours organised by self.
- Proof of concept written in Python on Raspberry Pi OS and Windows

DISSERTATION PROJECT

Sep 2020 – May 2021 | University of Sheffield

- An Immune Inspired Algorithm for Fault Tolerant Multimodal Machine Learning
- Produced a supervised academic paper-style document on how to improve a multimodal *Smart Gym* by implementing a *Negative Selection Algorithm*.
- Gave a presentation to the marker.
- Learnt many independent organisational skills.
- Worked in a PyTorch Anaconda environment on the university's Linux based HPC.

SOFTWARE HUT

Sep 2019 – May 2020 | University of Sheffield

- Worked with a team of Computer Science students to produce a linguistics questionnaire web-app for a real customer.
- Web-app made with Ruby on Rails and other gems including bootstrap.
- Collaborated using Linux and GitHub and distributed on Heroku.

ENGINEERING - YOU'RE HIRED

Sep 2019 – May 2020 | University of Sheffield

- Worked with an interdisciplinary engineering team for a week long project involving designing and presenting an electric hybrid plane.
- Learnt many organisational skills and project management including planning funds and time for long term research and development.

SECONDARY EDUCATION

RICHMOND SIXTH FORM COLLEGE

2016 - 2018 | Richmond
Maths A • Physics A • Computer Science B • French B (AS)

RICHMOND SCHOOL

2011 - 2016 | Richmond
GCSE: 6 A*, 1 A, 3 B, 1 C

SKILLS

PROGRAMMING

Python • Java • Haskell •C#
Ruby • HTML/CSS • JavaScript

TECHNOLOGY

Git/GitHub • Linux
UNIX • Windows • ROS
Anaconda

HOBBIES

Music (Piano, Guitar, Electronic) • French • Jogging • Hiking

WORK

KING STREET KITCHEN AND GIFT | Shop Keeper

2018-2019 | Richmond

- Given full responsibility for the shop, I worked 9-5 selling products and helping customers with their requests.
- Managed the stock database and wrote a stock management program in C# as an A-level project.
- Summer job

STATION BAR AND RESTAURANT | Front of House

2016-2017 | Richmond

- Worked with the front of house team serving customers, making coffee and waiting on tables as well as clean and tidy.

RAZER BLUE | IT Work Experience

2017 (1 week) | Catterick

- Helped business clients by listening to their technical problems and solving them.

AWARDS

2016 British Physics Olympiad Bronze Level 2
2015 Duke of Edinburgh Bronze
2014 Arts Award Bronze Level 1
2013 Silver CREST

UNDERGRADUATE EDUCATION

UNIVERSITY OF SHEFFIELD

MSc Computer Science
Expected Jun 2022 | Sheffield

MODULES

Introduction to Software Engineering	70
Foundations of Computer Science	64
Java Programming	76
Machines and Intelligence	57
Web and Internet Technology	70
Global Engineering Challenge Week	P
Mind, Brain and Personal Identity	63
Introduction to Algorithms and Data Structures	68
Automata, Computation and Complexity	78
Data Driven Computing	73
Systems Design and Security	63
Functional Programming	91
Engineering - You're Hired	D
Robotics	77
Logic in Computer Science	81
Software Hut	73
Dissertation Project	69
Speech Processing	74
3D Computer Graphics	73
Bioinspired Computing	70
Cyber Security Team Project	73
Finance and Law for Engineers	71
Modelling and Simulation of Natural Systems	72
Adaptive Intelligence	61
Cognitive and Biomimetic Robotics	68
Darwin Project	
Text Processing	
Testing and verification in safety-critical systems	
Machine Learning and Adaptive Intelligence	
Speech Technology	
Natural Language Processing	
Parallel Computing with Graphical Processing Units (GPUs)	