

# Shaun Rafael Cassini

srcassini@gmail.com | shauncassini.com

## Education

---

### Bachelor's & Master's in AI and Computer Science

Sep.2018 - Jul.2022

*University of Sheffield*

- Currently on a first class/distinction with honors
- First class mark on my dissertation project on applied biometric computer vision for gait recognition
- High academic achievement: marks include 100 in NLP, 85 in Speech Processing and 90 in Machine Learning

### A-Levels/GCSEs

Sep.2015 - Jul.2018

*Sedbergh School*

- A-levels in Maths, English Literature and French with grades AAA
- 11 GCSEs with 5 A\*s and 6 As, Grade 8 LAMBDA (Speech & Drama) award, Debating team captain

## Experience

---

### Research project in chaotic time series prediction

Sep.2021 - Jun.2022

*Master's Thesis*

- Co-authored a mathematical research paper led by Dr. Joab Winkler
- Explored the use of regularisation in echo-state networks with matrix decomposition methods

### Undergraduate teaching assistant

Sep.2021 - Jun.2022

*University of Sheffield*

- Delivered labs in introductory Java, Computational theory & Complexity, and Logic

### Text classification with GloVe embeddings on AG News corpus

Mar.2022 - Jun.2022

*Assignment (Master's level)*

- Implemented a feed-forward neural network with dropout from scratch in Python & Numpy
- Used pretrained GloVe word embeddings as a frozen first-layer to improve classification performance
- Most enjoyable work I've done; achieved full marks (top of the cohort)

### Genetic/evolutionary algorithms

Dec.2021 - Feb.2022

*Personal Project (Blog Post)*

- Tested on 'magic hexagon' problem, implemented with Python & Numpy
- Used statistical methods, i.e. Monte Carlo sampling, for the runtime analysis of EAs

### Developed a productivity app in Angular

Jun.2020 - Aug.2020

*Freelance*

- Pitched and received independent funding from the university
- Gained hands-on experience with the mobile software development process

### Helped create a Python course and presented in London

Feb.2019 - Jun.2019

*Enactus Sheffield*

- Assisted with the development of Code Creators Sheffield - a Python course for beginner programmers
- Presented at ExCel London in front of 5,000 people

## Key Skills

---

- Python, PyTorch, NLP, GPU CUDA in C, Ruby (Rails), Java, Javascript, SQL databases, Firebase, Angular
- Solid mathematical and problem-solving aptitude (Linear Algebra, Probability Theory, Calculus)
- Fluent/native in English and French with strong communication, team-working and literary skills
- Creative mindset (Creative writing, film and music production - AAA grade from Berklee College of Music)