



# BRIAN FORMENTO

**Phone:** +6584567135 **Nationality:** UK and Italian passport holder

**Email:** brianformento@hotmail.com

**Website:** brianformento.com

**Github:** Aniloid2

## Experience

**Researcher – Data science** 08/2019 – 08/2020  
IDS, National University of Singapore, Singapore

Research in data science and computer vision for medical imaging.

Built a front end WebUI (A medical software for hospitals and polyclinics in Singapore).

Developed a business insight tool to analyse the spending behaviour of 1.5M Singaporeans

**Intern - Singnal processing** 07/2017 – 09/2017  
Roke Manor Research, United Kingdom

Working with Matlab, C and Python, for the implementation of a researched SP algorithm.

**Intern - Electronic engineer** 07/2016 – 09/2016  
L3 ASV, United Kingdom

Designed a PCB, reduced costs by £1450 per item.

## Projects

**Gait recognition meta-learner** 01/2019 – 07/2019  
National University of Singapore, Singapore

Used video data and one-shot learning with a recurrent convolutional neural network in a Siamese formation for gait recognition research.

**Point cloud AI denoiser** 07/2018 – 01/2019  
Southampton University, United Kingdom

Using ML to remove aliasing and moiré from point cloud render videos. Used a convolutional recurrent autoencoder.

**Scenery recognition** 07/2018 – 01/2019  
Southampton University, United Kingdom

15 class scene recognition. Achieved 3<sup>rd</sup> highest accuracy in a class of 300 students. Used ResNet50 together with an SVM.

**Protein structure predictor** 01/2018 – 07/2018  
Southampton University, United Kingdom

Secondary protein structure prediction using an LSTM. Achieved close to state-of-the-art performance.

## Education

**Phd Student – Computer Science** 08/2020 – present  
National University of Singapore, Singapore

Received the Singapore International Student Award scholarship.

Supervised by: **Dr Chen Zhenghua A\*Star, Dr. Foo Chuan Sheng A\*Star, Prof See-Kiong Ng NUS**

**MEng (1st Class Hons)** 09/2015 – 07/2019  
**Electronic engineering with AI**  
Southampton University, United Kingdom

**Key Modules:** Computer Vision, Evolution of complexity, Advanced programming, Machine Learning, Computational Biology.

### University's entrepreneurial activities

- Co-organised and co-run 5 speaker events and 2 workshops throughout the year 16/17.
- Scouted and fast-forwarded through an incubator 3 teams, one won £25k from 3 investors in 2017.
- Pitched a start-up together with two all-star students in 2016
- Pitched another start-up in 2016 and won £3k.

## Skills

### Computer science

Numpy, Scikit-learn, Pandas, Keras, Pytorch, Matplotlib, Anaconda, Git, Docker, Linear algebra, Deep learning, Computer Vision, OpenCV, Machine learning, HTML, CSS, JavaScript, ReactJS, C, C++.

### Languages

English & Italian

Native

## Hackathons

Attended 8, Finalist in 3.

**F10 hackathon** 15/09/2019  
Pwc headquarters, Singapore

Developed with a team an AI tool to aid corporate action decision making. It uses stock exchange data and random forest decision trees.

**Yitu online hackathon** 20/02/2019  
Singapore

Object detection task on pedestrian/cars, my model achieved the 10<sup>th</sup> highest accuracy in the whole of Singapore, **won \$300.**