

BRIAN FORMENTO

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Experience

Researcher – Data science | CV 08/2019 – present
National University of Singapore, Singapore

- Using 4 unstructured retinal fundus datasets to detect stages of chronic kidney disease. Using deep learning and computer vision with PyTorch.

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.

Projects

Advanced ML project 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 gate recognition research

Graduate Thesis 07/2018 – 01/2019
Southampton University, United Kingdom

- Using AI to remove aliasing and moiré from point cloud renders. Used a convolutional recurrent autoencoder

Computer vision project 07/2018 – 01/2019
Southampton University, United Kingdom

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

Computational biology 01/2018 – 07/2018
Southampton University, United Kingdom

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

Thesis 10/2017 – 07/2018
Southampton University, United Kingdom

- Computer vision system to detect people carrying weapons. Using Keras, Tensorflow and Python while building my own synthetic dataset by modding a game in C#.

Skills

Computer science

Numpy, Scikit-learn, Pandas, Keras, Pytorch, Matplotlib, Deep learning, Computer Vision, OpenCV, Machine learning, HTML, CSS, JavaScript, C, C++

Languages

English & Italian

Native

Education

Exchange Student 01/2019 – 07/2019
National University of Singapore, Singapore

Key Modules: Advanced topics in machine learning, Knowledge discovery methods in bioinformatics, neural networks, digital entrepreneurship.
Finalist YITU hackathon 2019 (**won \$300**)

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, Computer Engineering, Control & Communications, Secure Systems

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 of which went on and won £25k from 3 investors in the 2017 Dragons Den competition.
- Pitched a start-up together with two all-star students at the UoS Dragons Den 2016.
- Pitched another start-up at the Take-Off 2016 challenge and won £3k.