



MATH STUDENT

CONOR COSNETT

GET IN CONTACT



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PERSONAL PROFILE

My ambition is to become a [Machine Learning Engineer](#). I have built a strong foundation in maths, physics and computer programming which I hope I can leverage to pursue this path. I am eager to gain experience in my chosen discipline.

TECHNICAL SKILLS

- Deep Learning
- Programming
- Mathematical Modelling
- Statistics
- Probability Theory
- Formal Logic

COMPUTER SKILLS

- Python
- Wolfram Mathematica (6225 pts on stack overflow site)
- Unix Shell
- R
- Emacs
- Latex
- Linux
- Understanding of Hardware
- AWS
- Google Cloud
- MATLAB
- C
- Arduino
- Apache MX Net
- TensorFlow
- basic web dev
- LISP

WORK EXPERIENCE

INTERN

APPLIED OPTICS GROUP, NUIG | Summer 2018

- [Computer Vision](#) project using Python
- Extended an exoplanet "detection system" developed in (undergraduate) final year project to a "detection and localisation system".
- Documented the project in the style of a journal article (available on request)
- Carried out further experimental work:
 - Replaced the Google Inception V3 (2D) CNN based classifier with a 3D convolutional neural net.
 - Compared the two classifiers using Receiver Operating Characteristic curves.
 - Demonstrated speckle (optical noise) removal from direct imaging sequences using an Autoencoder.

INTERN

APPLIED OPTICS GROUP, NUIG | Summer 2017

- Took steps toward learning about the subject of detecting exoplanets within direct coronagraph image sequences.
- Applied an "off the shelf" neural net to the task of detecting exoplanets in simulated data. Used an AWS GPU cluster to do this.
- Built a triple GPU Computer to experiment with Deep Learning.

EDUCATION HISTORY

NATIONAL UNIVERSITY OF IRELAND, GALWAY

HDip in Applied Mathematics | 2019-2020

- [First Class Honours](#) with final overall grade of 83%
- [Project](#): Created a SAT solver recipe book. Provided recipes to encode John Conway's Game of Life in Boolean logic and investigated the "Boolean Satisfiability Problem" in this context.

NATIONAL UNIVERSITY OF IRELAND, GALWAY

BSc (Honours) in Physics and Applied Physics | 2016-2018

- [First Class Honours](#) with final overall grade of 75%
- School of Physics Third Year Laboratory Gold Medal
- [Final Year Project](#): Developed an exoplanet detection system using a Convolutional Neural Network: Used transfer learning to repurpose a pretrained instance of the Google Inception V3 to classify direct imaging sequences.

HOBBIES

- Machine Learning
- Intelligence Augmentation
 - Human Computer Interaction
 - Stenography
- Self Improvement
- Trying to learn Russian
- Running
- Currently reading "Zero to One" by Peter Thiel

MASSIVE OPEN ONLINE COURSES

- Coursera: Machine Learning: Andrew Ng
- Coursera: Introduction to Logic, Michael Genesereth
- Coursera: Probabilistic Graphical Models, Daphne Koller
- Coursera: Introduction to Mathematical Thinking, Keith Devlin
- edX: MITx: 6.041x Introduction to Probability – The Science of Uncertainty
- edX: Introduction to Computer Science and Programming Using Python
- edX: Linear Algebra – Foundations to Frontiers, Robert van de Geijn