STATEMENT

I am interested in the notion of **intelligence augmentation** (as described by Doug Engelbart in his paper (Augmenting Human Intellect (1962))). Mathematica, Google Web Search, Stack Exchange, Wikipedia, stenography, the computer - and the internet - are recent examples of intelligence augmentation artefacts.

TECHNICAL SKILLS

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

COMPUTER SKILLS

- Wolfram Mathematica (6225 points on stack exchange site)
- Python
- Unix Shell
- Emacs
- Latex
- Linux
- Understanding of Hardware
- AWS
- Google Cloud
- MATLAB
- Pytorch
- Arduino
- Apache MX Net
- TensorFlow
- basic web developement
- LISP

Conor Cosnett

Intelligence Augmentation Researcher

GET IN CONTACT

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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
- 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 Reciever 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.

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

HOBBIES~2021

- Exploring intelligence augmentation technologies
- Learning Stenography
- Learning Russian
- Dan Carlin Hardcore History Podcast
- Lex Fridman Podcast