1 Early Education

Please provide any additional information relevant to your academic background which should include the name, location and dates of any training courses attended.

1.1 School Years

1. I was interested in simple electronics as a school boy. I made robots that navigated my room. Later on I made an automatic physiotherapy machine for the had and printed self designed circuit boards using chemicals and a laser printer in my room at home. I used a 3D printer at school to print the gear box for the hand physio machine. I designed and soldered the electronic components from first principles.

2. I was keen on playing the piano as a teenager and did music for my leaving cert. I feel that the hand-eye co-ordination necessary for playing the piano transfers quite well to computer programming. I achieved piano grade 6 in 2009.

3. I enjoyed maths at school and I went for extra voluntary maths tutorials on Saturdays at Maynooth college. I took part in Irish maths Olympiads in Limerick and came 14th.

4. I designed and made a custom wooden desk for doing my electronics at home using the Solid Works CAD system. This desk was also equipped with a homemade air extraction system.

1.2 University Years

During spare time taught myself to utilize the following software packages:

- **Solid Work** (Computer Aided Design) 2011
- **Sibelius 6** (Music Notation and Composition) 2012

Spent the following approximate number of hours learning the following computer languages between the years 2012 and 2016:

- **Python:** 100 hours
- **MATLAB:** 1000 hours
- **Mathematica:** 3500 hours
- **C:** 50 hours
- **Haskell:** 100 hours
- **Prolog:** 300 hours
- **LaTeX:** 200 hours
- **EMACS with AUCTEX:** 200 hours

2 MOOCs

I worked through the following online courses in 2015 and 2016

- Machine Learning: Andrew Ng; Coursera
- Introduction to Programming with MATLAB: Vanderbilt University; Coursera
- Introduction to Computer Science using Python; EDX; MIT; Other MOOCs partially completed
- Introduction to Mathematical Thinking, Keith Devlin
- Machine Learning, Pedro Domingos
- Introduction to Logic, Michael Genesereth
- Artificial Intelligence, Berkeley, Dan Klein and Pieter Abbeel. 5. Differential Equations, Coursera, Paul Blanchard