

Damon Civin | Curriculum Vitae

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Work Experience

ARM Holdings

Data scientist

Cambridge, UK

May 2015 – Present

- Development of intelligent apps for internal use
- Building statistical models to aid decision making by business domain experts
- Consulting with ARM Research in areas requiring expertise in machine learning
- Curation of commercial data from structured & unstructured sources
- Creation of metrics & visualisations for monitoring & improving performance across multiple business units
- Promoting a data driven culture & mentoring data analysts

Darktrace

Software developer (Machine learning)

Cambridge, UK

Aug 2014 – March 2015

- Developed machine learning components of multiple award-winning cyber-security system
- Responsible for development of online training infrastructure & scaling
- Responsible for algorithms research & integrating analyst feedback

Council for Scientific and Industrial Research

Student researcher

Pretoria, South Africa

Feb 2009 – Feb 2010

- Wrote Matlab code implementing finite element approximations of mechanical models
- Used the data from these numerical experiments to compare different models for beam bending
- Advised a team of engineers on using these models to simulate the mechanical properties of the human skeleton
- Beta tested and volunteered as a tutor on *Dr. Math*, an online tutoring system implemented on the MXit social network

KRNGY Records

Co-Founder

Pretoria, South Africa

Apr 2008 – Sep 2010

- Managed online presence and sales
- Organised tours, art shows and concerts, production of albums and merchandise

Nuclear Energy Corporation of South Africa

Student researcher

Pretoria, South Africa

Nov 2006 – Feb 2007

- Mathematical analysis and computer simulation of of experimental nuclear reactor
- Made recommendations on safety and performance of proposed reactor design

Education

PhD in Mathematical Analysis

Supervisor: Mihalís Dafermos

University of Cambridge

Oct 2010 – Feb 2015

- Thesis: Linear stability of charged rotating black holes for linear scalar perturbations
- Invited presentations on research and public lectures
- Cambridge Commonwealth Scholarship (full tuition and living expenses for 4 years)
- Cambridge Philosophical Society and Parry Dutton Research Awards (funded research trips to USA)
- Courses on differential equations, probability, computational analysis, image processing and machine learning
- Gave tutorials to pairs of undergraduate students in analysis and geometry

MSc in Applied Mathematics

with Distinction (Grade > 80%)

University of Pretoria

2009 – 2010

- Dissertation on numerical approximation of eigenvalues and eigenvectors using the finite element method
- Courses on computational analysis, partial differential equations, mechanics and mathematical modelling
- Presented problem sessions to large classes of undergraduate engineering students
- Presented computer practical classes to undergraduate applied mathematics students

BSc (Hons) in Applied Mathematics
with Distinction (Grade > 80%)

University of Pretoria
2005 – 2009

- Courses focusing on mathematical physics and computational analysis
- Best 3rd and 4th Year Student In Mathematics

Computer Skills and Languages

Advanced:

- Machine learning algorithm design and implementation
- Deep learning, natural language processing, Bayesian inference, unsupervised online algorithms for clustering, classification and anomaly detection, reinforcement learning
- Python, NumPy, \LaTeX , Matlab, Octave, NLTK, scikit-learn, SPSS

Working Knowledge:

- Hadoop, Mathematica, PyMC, R, SciPy, Spark, Tableau
- SQL and NoSQL databases
- Numerical approximation methods for differential equations, image denoising and inpainting algorithms

Languages: English (Mother tongue), Afrikaans (Fluent), French (Beginner)

Activities and Achievements

Winter Comfort

Cambridge, UK

Dec 2015 – Mar 2016

- Scheduled venues, volunteers & cooking arrangements to provide additional support for homeless people over winter

Pub Grub for Calais

Calais refugee camp, France

Nov 2015

- Drove in a convoy to cook & provide food for refugees in Calais refugee camp

Cambridge iTeams

Institute for Manufacturing, Cambridge

Oct 2013 – Dec 2013

- Part of a team of 7 students to commercialise research in biophotovoltaics
- Secured a contract with Scotscape to incorporate biophotovoltaics into their "Living wall" system
- Winner of Cambridge University Entrepreneurs "100 words for £100" pitch competition

Mongol Rally 2012

Eurasia

Jun – Aug 2012

- Drove roughly 10,000 km from Cambridge, UK, to Ulaanbaatar, Mongolia in a tiny car for charity
- Raised over £4000 for the Lotus Children's Centre, and Project Rhino KZN

Research groups in the UK conference

CMS, Cambridge

Nov 2011

- Organised and ran a nationwide conference for research groups to recruit students
- Many students found PhD positions at UK universities as a direct result of this event

Cambridge Analysts' Knowledge Exchange

CMS, Cambridge

Oct – Dec 2010

- Started and ran a weekly research seminar series for graduate students in analysis
- The series is ongoing and has inspired other students in the mathematics department to start similar seminar series

Sticky Antlers

Experimental rock band based in Pretoria, South Africa

2007 – 2010

- Featured in the documentary "Punk In Africa" (2012)
- Voted *Art South Africa's* "Bright Young Thing" 2009
- Voted *Mail and Guardian's* "300 Young South Africans to Take to Lunch"

References

Available on request