# Andrew John Tulloch

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#### **EDUCATION**

2013-2014 Trinity College, University of Cambridge — Master of Mathematical Statistics (Cambridge, UK)

- Cambridge Commonwealth scholarship holder, deferring PhD in Statistics at UC Berkeley.
- Coursework includes: Statistical Theory, Bayesian Statistics, Time Series Analysis.

# 2008-2011 University of Sydney — Bachelor of Science (First Class Honours and University Medal) in Mathematics (Sydney, Australia)

- GPA 93/100 (4.0/4), Honours GPA 98/100, GRE 800Q/700V.
- Thesis: "Intensity Models for Credit Risk" (Supervised by Prof. Marek Rutkowski).
- Coursework includes: Artificial Intelligence, Algorithmic Game Theory, Stochastic Processes.

#### EXPERIENCE

#### 2012-2013 Facebook — Machine Learning Engineer, Ads Optimisation (San Francisco, CA)

- Technical leader on Ads Optimisation, successfully envisioning and implementing multiple projects with cumulative impacts of several hundred million dollars of incremental revenue.
- Performance reviews of 'redefined expectations', reserved for the top 2-3% of engineers.
- Selected projects included applying techniques in convex optimisation and stochastic optimal control theory to optimise system utilisation on a per-query basis, and developing a state of the art distributed machine learning framework.

# 2010-2011 Goldman Sachs — Strategist (Intern/Part Time), FICC/Algorithmic Trading (Sydney, Australia)

• Developed machine learning models to improve trading algorithms for the optimal execution of market orders - applying and extending research in several areas of market microstructure.

#### SELECTED AWARDS

- Awarded the University Medal and the Joye Prize for the highest final year Honours mark (both research and coursework) in the Faculty of Science at the University of Sydney.
- Awarded the Science Achievement prize for the **highest** undergraduate GPA over three years in the Faculty of Science, out of over 6,000 students.
- Represented Australia at the 39th International Chemistry Olympiad in Moscow. Awarded a silver medal, ranking 42nd in the world and first in the Southern hemisphere.

# SKILLS AND INTERESTS

**Research:** Distributed machine learning, statistical learning theory, deep learning and computer vision, convex optimisation.

Technical: Strong knowledge of C, C++, Python, R, Haskell, Go, MATLAB, Hive/Hadoop, LATEX, etc.

# OTHER ACHIEVEMENTS

- Awarded the Faculty of Science Dean's Honour List Prize for achieving the **highest** GPA in third year science.
- Awarded the K.E. Bullen Scholarship for ranking first in Applied Mathematics.
- Awarded the St Andrew's College Medal and Bill Caldwell Scholarship for the highest undergraduate GPA and academic, sporting, cultural, and leadership pursuits.
- 2009 Awarded the Barker Scholarship for ranking first out of over 500 students in first year mathematics.
- Ranked 2nd out of over 10,000 students in Western Australia in TEE (high school final examinations), placing 1st in Physics, and achieving a 99.95 TER.