

Duncan Andrew Clark

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duncan-clark.github.io

Education

PhD Statistics, University of California – Los Angeles

2017 – 2021

- **Research area:** Stochastic modelling of social networks. Extending current statistical models to improve understanding of social structure. Bootstrap methods, Bayesian inference and model selection for networks. Developing modelling software in R and C++.
- **Summer 2018 project:** Verified power of cutting-edge social network model. Requested network data from more than 20 authors, understood context, processed data, fit complex stochastic models, suggested improvements to parameter estimation.
- **Coursework:** Causal Inference, Machine Learning, Statistical Programming, Theoretical Statistics, Latent Variable Modelling, Missing Data, Regression and Classification Algorithms, Point Process Models.

MSci Mathematics, University College London (UCL), UK

2011 – 2015

- Classification: 1st Class Honors (US equivalent - 4.0 GPA).
- (Masters) Final Year Project – Differential geometry on minimal surfaces. Independent research and learning.

Exchange Program, University of Washington, Seattle

2013 - 2014

Projects

Team Time Trial Modelling

- Developed automated gathers, parsing and processing of UCLA cycling team data.
- Analysis led to strategy adjustment in team time trials

Cricket Prediction

- Machine learning techniques to predict outcomes of cricket matches.

Experience

Teaching Assistant, University of California Los Angeles

September 2018 – Present

- Teaching labs on college statistics, tailoring support to students' needs.
- Assigned and graded lab assignments, providing helpful feedback.
- Fast email response and multiple office hours for extra help.

Grader, University of California Los Angeles

September 2017 – June 2018

- Accurate, reliable and on-time grading of lab assignments.

Actuarial Associate, Xafinity Consulting, UK

September 2015 – September 2017

- **First 4 months focused on carrying out traditional pensions actuarial work**
 - Extensive work with data for pension scheme liability modelling.
 - Improved team efficiency by streamlining work allocation for a large client.
- **Selected, based on technical skills, for specialist insurance modelling team**
 - Worked within a close team, meeting tight deadlines providing mission critical material.
 - Analyzed benefit specifications for complex pension schemes.
 - Communicated complex scheme specific features clearly and precisely. Salient points highlighted.
 - Managed individual workload between general actuarial team and specialist modelling team.
- **Student Member, Institute and Faculty of Actuaries (IFOA) – UK actuarial professional body**
 - Passed CT1-8 all on first attempt (average pass rate ~ 50%). Excellent financial background knowledge.

Skills

- Coding: R (Advanced), Python (Basic), SQL (Basic), C++ (Basic), Latex (Intermediate), Unix (Basic).

Hobbies and Interests

Economics, Always reading around, interested in different viewpoints and evidence based policy solutions.

Cycling, UCLA (Cat A) 1st overall in Western Conference 2019. Regular ride organizer.

Cooking, Enthusiastic chef and inquisitive patisserie, always trying new cuisines, techniques and ideas.

Unicycling, Keen unicyclist and 2016 UK unicycle road race champion, awarded GCN "Wattage Bazooka".

Cricket, Test Match Special super fan and all-round cricket statistics geek.