

Luke Colin Thorburn

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RESEARCH INTERESTS Argument mining, natural language processing, public discourse; probability, stochastic processes; economics.

EDUCATION

- 2017 - 2019 **Master of Science (with Distinction)**
The University of Melbourne
Specialising in Statistics & Stochastic Processes. Research on integral representations of fractional Brownian motion. Graduated with a First Class Honours average.
- 2014 - 2016 **Bachelor of Science**
The University of Melbourne
Majored in Mathematics & Statistics, specialised in Statistics and Stochastic Processes. Graduated with a First Class Honours average.
- 2012 - 2013 **International Baccalaureate Diploma**
St Leonard's College
Studied Literature, Japanese and Chemistry at standard level, Mathematics, Physics and Economics at higher level. Awarded 43/45, equivalent to a notional ATAR of 99.60.
- 2018 **Summer School**
Australian Mathematical Sciences Institute
Completed two honours-level subjects: 'Topological Data Analysis' and 'Probabilistic Methods & Random Graphs'.
- 2017 **Summer Institute**
Duke University
One of 32 selected to participate in the second week of a program on 'Topics in the History of Economics', hosted by the Center for the History of Political Economy.
- 2014 - 2016 **Diploma of Languages (Japanese)**
The University of Melbourne

EMPLOYMENT

- 2019 - **Research Assistant**
The Hunt Laboratory for Intelligence Research
4 days/week. Statistical research support (incl. pre-registration writing) for a research group building tools to improve the quality of reasoning in intelligence organisations.
- 2016 - **Data Scientist**
Resilient Youth Australia
Part-time, developing novel statistical methods, reporting infrastructure and interactive graphs (in d3.js) to enable stakeholders to extract value from a perennial survey measuring resilience and mental health in Australian school students.
- 2011 - **International Evaluator & Future Scene Writer**
Future Problem Solving Program Australia
Casual, evaluating written competition booklets and writing Future Scenes at state, national &

international levels.

- 2019 **Tutor**
The University of Melbourne
Casual, tutoring second year probability in the School of Mathematics & Statistics.
- 2017 **Academic Tutor**
Newman College
Tutoring in 'MAST30025 Linear Statistical Models', a third-year subject.
- 2017 **Research Assistant**
The University of Melbourne
Worked with A/Prof. Tony Wirth and Dr James Saunderson in the Department of Computing and Information Systems on algorithms for the finding of densest subgraphs.
- 2016 - 2018 **Research Assistant**
CSIRO Manufacturing (Biomedical)
Used D3.js to visualise phase space in protein crystallisation. Originally 6-month appointment through the Undergraduate Research Opportunities Program (UROP), with several stints of follow-up work.
- 2014 - 2015 **Stochastic Modelling**
Mercer
Fixed-term Summer project, stochastically modelling mortalities for a new retirement income product, LifetimePlus.
- 2014 - 2019 **Student Study Assistant**
St Leonard's College
Casual, providing academic tutoring to students after school, on weekends and during school holidays.
- 2014 - 2017 **Private Academic Tutor**
Casual, self-employed. Mainly in Mathematics, Physics and Economics. Over 300 hours of tutoring experience.

COMMUNITY SERVICE + PRO BONO

- 2015 - 2017 **Director**
Australian Cancer and Health Sciences Competition Inc.
- 2014 **Video Producer**
iGEM UniMelb
Produced three short videos to help explain and promote the work of the team from The University of Melbourne entering the International Genetically Engineered Machine competition.
- 2012 **Peer Support Leader**
St Leonard's College
- 2011 **SCOPE Leader**
St Leonard's College
Mentored an overly reserved grade three student.

AWARDS + HONOURS

- 2019 Mathematics and Statistics School Scholarship
The University of Melbourne
- 2018 Maurice H. Belz Scholarship
The University of Melbourne
- 2016 Leaders in Communities Award (LiCA)
The University of Melbourne
- Undergraduate Research Opportunities Program (UROP) Scholar
Biomedical Research Victoria
- 2015 Keith Frampton Roll of Honour (Member)
Future Problem Solving Program Australia
- Highest Mark, ATOC20001 Weather & Climate Systems
The University of Melbourne
- 2014 Second Place, ECON10004 Introductory Microeconomics Film Competition
The University of Melbourne
- 2013 Year 12 IB Dux
St Leonard's College
- Old Collegian's Award for Positive Involvement
St Leonard's College
- Full College, Music and House Colours
St Leonard's College
- 2012 Monash Prize for Excellence & Year 11 IB Dux
St Leonard's College
- E. Paul Torrance Youth Award
Future Problem Solving Program Australia