

Daniel Filan – Curriculum Vitæ

AREAS OF INTEREST	AI Safety (Value Alignment, Corrigibility, Transparency, Logical Uncertainty), Theory of Artificial Intelligence (Reinforcement Learning, Algorithmic Information Theory, Statistical Machine Learning).
DEGREE	<i>Bachelor of Philosophy (Hons)</i> , 2012 – 2015 Australian National University <ul style="list-style-type: none">• Honours in Computer Science, undergraduate studies in Mathematics and Physics• Thesis: “Resource-bounded Complexity-based Priors for Agents”, supervised by Marcus Hutter• GPA: 7.00/7.00, 1st Class Honours
SELECTED AWARDS	<i>University Medal</i> , Australian National University 2015 <ul style="list-style-type: none">• Prize; awarded to students who have obtained First Class Honours (or Masters Advanced Equivalent) and demonstrated exceptional academic excellence across their studies, the highest academic prize for undergraduates. <i>National Merit Scholarship</i> , Australian National University 2012 – 2015 <ul style="list-style-type: none">• Annual funding; awarded to the top ~ 0.5% of school leavers. <i>Hanna Neumann Prize for Second Year Mathematics</i> , 2013 Australian National University <ul style="list-style-type: none">• Monetary prize; awarded to the top student in second year mathematics courses. <i>Dean’s Commendation List</i> , Australian National University 2012 <ul style="list-style-type: none">• Prize; awarded to students who achieve scores of 90 or above in all science courses in a particular year.
RESEARCH EXPERIENCE	<i>Summer Research Scholar</i> Summer 2013–2014 ANU Mathematical Sciences Institute <ul style="list-style-type: none">• An investigation into the theory and practice of measure-theoretic image packing. <i>Undergraduate Research Projects</i> 2013, 2014 ANU Research School of Computer Science <ul style="list-style-type: none">• Extreme state aggregation beyond MDPs: Tightness of FRL bounds. Department of Quantum Sciences, ANU Research School of Physics and Engineering <ul style="list-style-type: none">• Proofs of impossibility theorems regarding tests of oneself being in superposition.• An investigation into the self-gravitation of light in general relativity.
PUBLICATIONS	<ul style="list-style-type: none">• Loss Bounds and Time Complexity for Speed Priors. With Jan Leike and Marcus Hutter. Accepted for AISTATS 2016 proceedings.• What Would it Have Looked Like if it Looked Like I Were in a Superposition? With Joseph J. Hope (under review).• Value Learning and Wireheading. With Tom Everitt and Mayank Daswani (draft in progress).
NON-DEGREE PROGRAMS	<i>AMSI Summer School in the Mathematical Sciences</i> , January 2014 Mathematical Sciences Institute, Australian National University <ul style="list-style-type: none">• Introduction to Conformal Field Theory and String Theory for Mathematicians, 4 week course.

**TEACHING
EXPERIENCE**

Teaching Assistant, MATH2322 Advanced Algebra 1
ANU Mathematical Sciences Institute

Semester 2 2015

Teaching Assistant, MATH2320 Advanced Analysis 1
ANU Mathematical Sciences Institute

Semester 1 2015

Teaching Assistant, COMP2610 Information Theory
ANU Research School of Computer Science

Semester 2 2014