# johnaslanides

Machine Learning



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#### technical

Machine learning Artificial intelligence Software engineering Applied mathematics

#### programming

Python • Julia C • Go • Java MATLab • LATEX Mathematica JavaScript Excel/VBA

#### conferences

CFAR (Berkeley, 2016) ACML (ANU, 2013) AIP (UNSW, 2012)

#### languages English (native)

French (semi-fluent) Spanish (basic)

## education

2015 - 2016 MSc • Computer Science (Hons)

The Australian National University

First Class Honours and the University Medal • 7.0/7.0 GPA

Specialization: Artificial Intelligence

Thesis: AIXIjs: A Software Demo for General Reinforcement Learning

Advisors: Dr. Jan Leike & Professor Marcus Hutter

2008 - 2012 **BSc • Physics (Hons)** 

The Australian National University

First Class Honours • 6.2/7.0 GPA Specialization: Theoretical Physics Thesis: Relativity Concept Inventory Advisor: Professor Craig Savage

2011 Associate in Music, Australia (AMusA) Australian Music Examinations Board

Award with Distinction • Piano Performance

Diploma awarded by examination to outstanding candidates in the fields of

musical performance and music theory.

2006 - 2007 High School Certificate

Canberra Grammar School

1<sup>st</sup> in physics & french, and top overall science student • 99.25 ATAR Extension 2 Mathematics, Physics, Chemistry, English, Extension French

## **experience**

2017 - Machine Learning Consultant

Self-employed

Machine learning R&D for a telematics tech startup in Sydney. Technologies include GIS, time series clustering, and deep learning.

2015 - 2016 Software Engineer

Karma Wiki

Spent 9 months doing web development for a social network startup based in Canberra. Implemented numerous features, including draft and notification systems. Supervisor: Dayne Rathbone

Software Stack: Go · Cassandra · Git · JIRA

2014 - 2015 Software Consultant

Stygron Systems

Spent 4 months as a software developer & consultant to ACT Health. Designed and implemented systems for use in operating theatres and labs in the Canberra Hospital, and maintained existing medical supply chain systems. Supervisor: Mervyn Rose

Software Stack: Centura • Microsoft SQL Server

2013 - 2014 Graduate Researcher

NICTA & The Australian National University

Spent 18 months as a PhD researcher in physics. Developed my interests in statistics and machine learning, and developed my programming skills on two projects:

- Novel signal processing techniques for the Laser Interferometer Gravitational Wave Observatory (LIGO) project.
   Advisor: Dr. Ra Inta
- Structured prediction with conditional random fields Advisor: Dr. Justin Domke

2013	Teaching Assistant	The Australian National University	
	Ran tutorials & office hours. Graded assignments & papers, and wrote model solutions. 4.5/5.0 average score in student feedback:		
	<ul> <li>PHYS1201 (Advanced Physics II) - electromagnetism, waves &amp; optics, and special relativity • Supervisor: Professor Craig Savage.</li> <li>PHYS3001 (Theoretical Physics I) - variational calculus, quantum mechanics, electromagnetism &amp; relativistic field theory. • Supervisor: Professor Joe Hope</li> </ul>		
2008 - 2012	<b>Private Tutor</b> Taught mathematics, physics, and piano to high school students from Year 8 - Year 12.		
2011	<b>Medical Receptionist</b> Patient admin and service at a high-volume GP	Kambah Village Medical Practice clinic.	

## awards

2016	University Medal The Australian National University (ANU)
	The University Medal recognises students who have obtained First Class
	Honours (or Masters Advanced Equivalent) and demonstrated exceptional academic excellence across their studies.
2014	<b>Top-up Scholarship</b> National ICT Australia (NICTA)
2011	Scholarship for graduate researchers. (\$10,000/year)
2013	Australian Postgraduate Award Commonwealth Government
	Scholarship for graduate researchers. (\$25,000/year)
2012	John Carver Honours Scholarship ANU
	Scholarship for physics Honours students. (\$2,500/year)
2008	College of Business & Economics Undergraduate Award ANU
	Scholarship for outstanding first-year economics students. (\$5,000)
2007	Premier's Award NSW Government
	Prize awarded to students who achieve results of over 90 in 10 units of study in the HSC.

## publications

2013	The Relativity Concept Inventory	Physical Review Special Topics		
	J. S. Aslanides & C. M. Savage Phys. Rev. Special Topics: Physics Education Research Vol. 9			
2017	General reinforcement learning: survey & expert J. S. Aslanides, J. Leike, and M. Hutter Proc. of 26th International Joint Conference on Ar		IJCAI (to appear)	