

# JOHAN VAN DER MOLEN MORIS

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## EDUCATION

PhD Statistics	2015-2020 PhD Statistics – University of Edinburgh School of Mathematics. School of Mathematics. College of Science & Engineering Thesis: <i>Bayesian Semiparametric estimation of densities with unknown support.</i> Supervisor: Dr. Natalia BOCHKINA
MSc Statistics and Operational Research	2014-2015 MSc Statistics & Operational Research – U. of Edinburgh <i>First Class (Distinction)</i> · School of Mathematics. College of Science & Engineering Thesis: <i>Estimation of the lower support point of an unknown density.</i> Supervisor: Dr. Natalia BOCHKINA
Mathematical Engineering	2006-2011 Mathematical Engineering degree – University of Chile <i>First Class Honours</i> · Faculty of Physical and Mathematical Sciences Thesis: <i>Educational Data Mining: Prediction models for elementary schools students' performance.</i> Supervisors: Dr. Roberto ARAYA, Dr. Raúl GORMAZ & Dr. Jaime SAN MARTÍN
BSc Engineering Sciences in Mathematics	2006-2010 BSc Engineering Sciences in Mathematics – U. of Chile <i>Second Class Honours</i> · Faculty of Physical and Mathematical Sciences.

## EMPLOYMENT

Teaching Assistant, U. of Chile	2020 Teaching Assistant – UNIVERSITY OF CHILE (Sep-Dec) Teaching Assistant of the course "Experimentation and Modelling approach to Mathematics Cognition and Education". Working remotely, I have participated in the design of the course and delivered online lectures covering statistical topics such as Random Effects and Multilevel modelling, and an introduction to machine learning methods. I also covered applications using programming languages R and Python.
Tutor, U. of Edinburgh	2016-2019 Tutor – UNIVERSITY OF EDINBURGH Tutor of Nonparametric Regression, Multivariate Data Analysis, Linear Statistical Modelling, Statistics 2 (including summer course), Statistical Methodology, Credit Scoring, Methodology Modelling and Consulting Skills, Engineering Mathematics.
Assistant Researcher, U. of Chile	2013-2014 Assistant Researcher – CENTER FOR ADVANCED RESEARCH IN EDUCATION, UNIVERSITY OF CHILE Development of automatic speech recognition models. Application of machine learning algorithms to identify content and teaching practices in classes. In collaboration with Prof. Bhiksha Raj and Prof. Rita Singh from Carnegie Mellon University. Project FONDEF D11i1009. <a href="http://www.ciae.cl">www.ciae.cl</a> Contact: Roberto ARAYA · +56 2 978 2590 · <a href="mailto:roberto.araya@ciae.uchile.cl">roberto.araya@ciae.uchile.cl</a>

2011 Internship – CENTER FOR ADVANCED RESEARCH IN EDUCATION,  
UNIVERSITY OF CHILE

*Internship,  
U. of Chile*

(Jan) Study of prediction models of elementary school students' performance in an online exercising system.

Contact: Roberto ARAYA · +56 2 978 2590 · [roberto.araya@ciae.uchile.cl](mailto:roberto.araya@ciae.uchile.cl)

2009 Teaching Assistant – PONTIFICAL CATHOLIC UNIVERSITY OF  
CHILE

*T. A.  
Catholic Univ.*

(Mar-Jul) Teaching Assistant of Algebra (Year 1). Faculty of Mathematics.

2008-2009 Teaching Assistant – UNIVERSITY OF CHILE

*T. A.  
U. of Chile*

Teaching Assistant of Linear Algebra (Year 1). Faculty of Physical and Mathematical Sciences.

## PUBLICATIONS

Sep 2020 Bayesian Semiparametric estimation of densities with  
unknown support

*PhD Thesis*

University of Edinburgh.

Author: Johan VAN DER MOLEN. Supervisor Natalia BOCHKINA

Oct 2015 Mining Social Behavior in the Classroom

*7th ICCCI 2015*

Proceedings of 7th International Conference ICCCI 2015. Lecture Notes in Computer Science.

Authors: Roberto ARAYA, Ragnar BEHNCKE, Amitai LINKER, Johan VAN DER MOLEN

Sep 2013 Causal dependence among contents emerges from the  
collective online learning of students

*5th ICCCI 2013*

Proceedings of 5th International Conference ICCCI 2013. Lecture Notes in Computer Science.

Authors: Roberto ARAYA, Johan VAN DER MOLEN

Jul 2013 Impact of a blended ICT adoption model on Chilean  
vulnerable schools correlates with amount of on online practice

*LT4D @AIED  
2013*

Proceedings of LT4D Workshop @AIED 2013.

Authors: Roberto ARAYA, Johan VAN DER MOLEN

## HONOURS & AWARDS

2016-2019 Travel Grants for Poster Presentations

*Travel Grants*

Several scholarships covering registration fees and travel or accommodation for poster presentations at BNP12 (Oxford, 2019), ISBA (Edinburgh, 2018), BNP11 (Paris, 2017), CRISM Master Class (Warwick, 2016).

2015-2019 Becas-Chile Scholarship for PhD Degrees

*Becas-Chile  
Scholarship*

Scholarship by CONICYT from Chilean Ministry of Education for PhD programmes. It covers tuition fees ( $\approx$  £14,500 per year) and living expenses ( $\approx$  £1,400 per month).

2014-2015 Becas-Chile Scholarship for Master's Degrees

*Becas-Chile  
Scholarship*

Scholarship by CONICYT from Chilean Ministry of Education for Master's studies. It covers tuition fees ( $\approx$  £17,500) and living expenses ( $\approx$  £1,400 per month).

*Academic  
Excellence*

2006-2008 Academic Excellence

Honour award for academic excellence during undergraduate studies at University of Chile.

*U. of Chile  
Scholarship*

2006 University of Chile Scholarship

Academic Excellence Scholarship by U. of Chile that covers tuition fees for undergraduate studies.

#### OTHER INFORMATION

*Computer Skills*

R, PYTHON, L<sup>A</sup>T<sub>E</sub>X, MATLAB, ARENA, XPRESS.

*Transferable Skills*

FOUNDER AND ORGANISER of Statistics PhD Discussion Group at U. of Edinburgh ·  
LEADER OF STUDENT HELPERS at ISBA 2018.

*Languages*

SPANISH (Mother Tongue), ENGLISH (7.5 IELTS test), GERMAN (Level A-2.1, Goethe Institut), JAPANESE (basic level, Chilean-Japanese Institute of Culture).

*Interests*

Bayesian Nonparametrics · Nonregular Models · Machine Learning