

Curriculum Vitae for Jesse Read

Personal Data

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Education

- 2007—2010 **Doctor of Philosophy** (expected)
University of Waikato. Hamilton, New Zealand.
Thesis: “*Scalable Multi-label Classification*”, supervised by Bernhard Pfahringer and Geoff Holmes.
- 2001—2005 **Bachelor of Computing and Mathematical Sciences** (*first class honours*)
University of Waikato. Hamilton, New Zealand.
Thesis (honours component): “*Filtering Spam with Machine Learning*”.

Research Interests

My PhD research involved *multi-label classification*: the supervised learning problem where each data point may be associated with multiple labels, as opposed to a single class label. The multi-label context is found in a huge variety of domains, for example text categorisation, scene and video classification, medical diagnosis, and bioinformatics (such as protein function classification). In some cases labels are structured into a hierarchy or ontology relating to the problem domain. My thesis involved developing general multi-label methods that scale up to large datasets. I have since taken an interest in mining *data streams*, where new data points arrive constantly and rapidly and methods must learn and make predictions in real time and deal with evolving data.

I am very familiar with the WEKA (<http://www.cs.waikato.ac.nz/~ml/weka/>) and MOA (<http://www.cs.waikato.ac.nz/~abifet/MOA/>) machine learning frameworks, and have built on them with my own open-source software; available at <http://meka.sourceforge.net>.

Publications

- [1] **Jesse Read**, Bernhard Pfahringer, Geoff Holmes, Eibe Frank. *Classifier Chains for Multi-label Classification*. In Proc. of the 20th European Conference on Machine Learning (ECML 2009). Bled, Slovenia 2009.
- [2] **Jesse Read**, Bernhard Pfahringer, Geoff Holmes. *Generating Synthetic Multi-label Data Streams*. In Proc. of ECML/PKDD 2009 1st Workshop on Learning from Multi-label Data (MLD 2009). Bled, Slovenia 2009.
- [3] **Jesse Read**, Bernhard Pfahringer, Geoff Holmes. *Multi-label Classification using Ensembles of Pruned Sets*. In Proc. of IEEE International Conference on Data Mining (ICDM 2008). Pisa, Italy. 2008.
- [4] **Jesse Read**. *A Pruned Problem Transformation Method for Multi-label Classification*. In Proc. of the NZ Computer Science Research Student Conference, Christchurch. New Zealand. 2008.
- [5] Daniel Kuen Seong Su, Victoria Siew Yen Yee, and **Jesse Read**. *Exploring Text-based and Graphical-based Usable Interfaces for Mobile Chat Systems*. eMinds International Journal on Human-Computer Interaction. Vol. 1(3). 2007.
- [6] **Jesse Read**. *Filtering Spam with Machine Learning*. Honours Thesis. University of Waikato, Hamilton, New Zealand. 2005.

University Exchanges and Talks

I have visited and collaborated with groups in the following institutions:

- Oct—Nov 2008 *Laboratory of Relational Algorithmics, Complexity and Learnability (LARCA)*, Universitat Politècnica de Catalunya, Barcelona
- Sep—Oct 2008 *Machine Learning Group*, Katholieke Universiteit Leuven, Leuven
- Sep—Dec 2007 *Department of Knowledge Technologies*, Jožef Stefan Institute, Ljubljana
- Aug—Sep 2007 *Mixed Reality Lab*, University of Nottingham, Nottingham

And gave the following talks:

- Oct 2008 “*Multi-label Classification*”, Universitat Politècnica de Catalunya
- Sep 2007 “*Online Hierarchical Multi-label Classification*”. University of Nottingham

Conference Reviewing

Program Committee Member International Workshop on Learning from Multi-Label Data (MLD 2010)

Co-Reviewer MLD 2009; SIGKDD 2009; Machine Learning Journal

Scholarships and Awards

- Apr—Oct 2010 University of Waikato Study Award
- 2007 Leonardo EU/NZ Exchange Programme
- 2007—2010 University of Waikato Doctoral Scholarship
- 2005 University of Waikato Computer Science Honours Scholarship

Work Experience

- Jan—Mar 2007 **Contract Software Developer**, *Hamilton Hawks Athletics Ltd.* Hamilton, New Zealand. Database design (MySQL), with human and computer interfaces (Python, PHP).
- Feb—Dec 2006 **Freelance Software Engineer**. *Fair Internet Ltd.* Brighton, United Kingdom. Development of mobile phone software (Java J2ME), with server-side databases (MySQL) and interfaces (PHP).
- Aug—Oct 2005 **Contract Software Developer**, *Hamilton Hawks Athletics Ltd.* Hamilton, New Zealand. Software development (C++) for Radio Frequency Identification (RFID) hardware.

Miscellanea

- LANGUAGES English (native); Spanish (fluent); German (intermediate); Latin (two years high-school)
- EXPERIENCE ABROAD Germany (5 months), Argentina (1 year), Slovenia (3 months), Spain (2 months), Chile (3 months), United Kingdom (2 months), United States (3 years)
- HOBBIES Running; Cycling; Martial arts; Hiking; Sailing; Travel; Languages

Referees

Supplied upon request.