

Fei Liu | Resumé

- The University of Melbourne
- Ph.D. Candidate (Natural Language Processing)
- Supervisors: Tim Baldwin, Trevor Cohn
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Education

The University of Melbourne

Doctor of Philosophy

Natural Language Processing, Deep Learning

Melbourne, Australia

Feb, 2015–Present

The University of Melbourne

Master of Software Systems Engineering, First Class Honours

Melbourne, Australia

July, 2012–July, 2013

Beijing University of Technology

Bachelor of Computer Science and Technology

Beijing, China

Sept, 2004–July, 2008

Selected Publications

Minghao Wu, **Fei Liu**, and Trevor Cohn (to appear). Evaluating the Utility of Hand-crafted Features in Sequence Labelling. In *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (EMNLP 2018)*, Brussels, Belgium, 2018.

Fei Liu, Trevor Cohn, and Timothy Baldwin. Narrative Modeling with Memory Chains and Semantic Supervision. In *Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics (ACL 2018)*, pages 278–284, Melbourne, Australia, 2018.

Fei Liu, Trevor Cohn, and Timothy Baldwin. Recurrent Entity Networks with Delayed Memory Update for Targeted Aspect-based Sentiment Analysis. In *Proceedings of the 2018 Conference of the North American Chapter of the Association for Computational Linguistics – Human Language Technologies (NAACL HLT 2018)*, pages 278–283, New Orleans, USA, 2018.

Fei Liu, Trevor Cohn, and Timothy Baldwin. Improving End-to-End Memory Networks with Unified Weight Tying. In *Proceedings of the 15th Annual Workshop of The Australasian Language Technology Association (ALTW 2017)*, pages 16–24, Brisbane, Australia, 2017. **Best Post Award**

Fei Liu, Timothy Baldwin, and Trevor Cohn. Capturing Long-range Contextual Dependencies with Memory-enhanced Conditional Random Fields. In *Proceedings of the 8th International Joint Conference on Natural Language Processing (IJCNLP 2017)*, pages 555–565, Taipei, Taiwan, 2017.

Fei Liu and Julien Perez. Gated End-to-End Memory Networks. In *Proceedings of the 15th Conference of the European Chapter of the Association for Computational Linguistics (EACL 2017, also presented at NIPS 2016 Let's Discuss: Learning Methods for Dialogue workshop)*, pages 1–10, Valencia, Spain, 2017.

Fei Liu, Julien Perez, and Scott Nowson. A Language-independent and Compositional Model for Personality Trait Recognition from Short Texts. In *Proceedings of the 15th Conference of the*

European Chapter of the Association for Computational Linguistics (EACL 2017), pages 754–764, Valencia, Spain, 2017.

Julien Perez and **Fei Liu**. Dialog State Tracking, A Machine Reading Approach using Memory Network. In *Proceedings of the 15th Conference of the European Chapter of the Association for Computational Linguistics (EACL 2017)*, pages 305–314, Valencia, Spain, 2017.

Fei Liu, Alistair Moffat, Timothy Baldwin, and Xiuzhen Zhang. Quit While Ahead: Evaluating Truncated Rankings. In *Proceedings of 39th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2016)*, pages 953–956, Pisa, Italy, 2016.

Fei Liu, Maria Vasardani, and Timothy Baldwin. Automatic Identification of Locative Expressions from Social Media Text: A Comparative Analysis. In *Proceedings of the 4th International Workshop on Location and the Web (LocWeb 2014)*, pages 9–16, Shanghai, China, 2014.

Experience

Facebook AI Research

Research Intern

Supervisors: Jacob Eisenstein and Omer Levy.

Seattle, USA

Sept, 2018–Jan, 2019

The University of Melbourne

Research Assistant (Casual)

Research Duties: Responsible for implementing a bi-directional LSTM-CRF model for sequential tagging tasks in low-resource languages for the DARPA-funded LORELEI project in collaboration with CMU.

Melbourne, Australia

May, 2017–Aug, 2017

Xerox Research Centre Europe

Research Intern

Research Topic and Achievements: Memory Networks, deep learning approach for personality trait recognition, 3 long conference papers accepted at EACL 2017

Grenoble, France

May, 2016–Oct, 2016

Royal Melbourne Institute of Technology

Research Assistant (Casual)

Detailed Achievements:

- Sept 2014 – Feb 2015 *Customized Search Engine for Industry Partner*
Managed to increase the accuracy of the query boundary detection process by 10% by applying machine learning techniques. Significantly improved the performance of the search engine (F-score from less than 10 to 55 by boosting precision substantially and factoring in translation probabilities to detect paraphrases).

Melbourne, Australia

Sept, 2014–Feb, 2015

The University of Melbourne

Research Assistant (Casual)

Melbourne, Australia

Sept, 2014–Dec, 2014

Hitachi Government & Public Corporation System Engineering, Ltd.

Software Engineer (Full-Time)

Internal Awards:

- Participated (as a core developer) in the development of the *GOOD-DESIGN-AWARD*-winning and *KIDS-DESIGN-AWARD*-winning web application named *ZoomSight* (No.1 in market share)

Tokyo, Japan

Oct, 2008–June, 2012

Awards and Additional Certificates

Best Short Paper Award

ICTIR

Tianjin, China

Sept, 2018

Best Poster Award

Australasian Language Technology Association

Brisbane, Australia

Dec, 2017

ALTA 2017 Student Scholarship <i>Australasian Language Technology Association</i>	Brisbane, Australia <i>Nov, 2017</i>
Google PhD Travel Scholarship Award <i>Google</i>	Melbourne, Australia <i>Oct, 2017</i>
Best Paper Award, 5th Annual Doctoral Colloquium <i>Sch. of Computing and Information Systems, The University of Melbourne</i>	Melbourne, Australia <i>July, 2017</i>
Conference Travel Scholarship <i>The University of Melbourne</i>	Melbourne, Australia <i>April, 2017</i>
Winning Team of Electronic Trading Challenge Hackathon <i>Jane Street Capital</i>	Melbourne, Australia <i>Mar, 2017</i>
Best Intern Presentation Award <i>Xerox Research Centre Europe</i>	Grenoble, France <i>Sept, 2016</i>
SIGIR Travel Scholarship <i>SIGIR</i>	Pisa, Italy <i>July, 2016</i>
3rd Prize, Microsoft Data Science Student Challenge Hackathon <i>Microsoft, The University of Melbourne</i>	Melbourne, Australia <i>May, 2016</i>
Australian Postgraduate Awards (APA Scholarship) <i>Department of Education, Australian Government</i>	Melbourne, Australia <i>Feb, 2015–Feb, 2019</i>
IELTS <i>General Training, Overall: 8.5/9.0</i> <i>Listening: 8.5/9.0, Reading: 9.0/9.0, Writing: 8.5/9.0, Speaking: 7.0/9.0</i>	Melbourne, Australia <i>Mar, 2013</i>
Oracle Certified Professional, Java SE 6 Programmer <i>Oracle Corporation</i>	Tokyo, Japan <i>Apr, 2011</i>
Japanese Language Proficiency Test, Level 1 (Top Level) <i>Japan Educational Exchanges and Services</i>	Tokyo, Japan <i>Dec, 2009</i>

Patents

Julien Perez, Scott Nowson, and **Fei Liu**. Author personality trait recognition from short texts with a deep compositional learning approach. US10049103B2 (granted).

Julien Perez, **Fei Liu**, and Scott Nowson. Gated end-to-end memory networks. US20180232152A1 (application).

Languages

Name	Proficiency
Chinese	Native or Bilingual Proficiency
English	Full Professional Proficiency
Japanese	Full Professional Proficiency

Programming Skills

- Primary language: Python, Java
- Knowledge of: TensorFlow, Keras, Theano, \LaTeX , Linux
- GitHub: <https://github.com/liuflly>