

# Fei Liu | Résumé

- The University of Melbourne
- Ph.D. Candidate (Natural Language Processing)
- Supervisors: Tim Baldwin, Trevor Cohn
- ✉ fliu3@student.unimelb.edu.au • 📄 liufly.github.io

## Education

<b>The University of Melbourne</b> <i>Doctor of Philosophy</i> Natural Language Processing, Deep Learning, Information Retrieval	<b>Melbourne, Australia</b> <i>Feb, 2015–Present</i>
<b>The University of Melbourne</b> <i>Master of Software Systems Engineering, First Class Honours</i>	<b>Melbourne, Australia</b> <i>July, 2012–July, 2013</i>
<b>Beijing University of Technology</b> <i>Bachelor of Computer Science and Technology</i>	<b>Beijing, China</b> <i>Sept, 2004–July, 2008</i>

## Publications

**Fei Liu**, Trevor Cohn, and Timothy Baldwin. (to appear) 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)*, 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**, Julien Perez, and Scott Nowson. A Recurrent and Compositional Model for Personality Trait Recognition from Short Texts. In *Proceedings of the Workshop on Computational Modeling*

of People's Opinions, Personality, and Emotions in Social Media (PEOPLES), pages 20–29, Osaka, Japan, 2016.

**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.

Andrei Shcherbakov, Ekaterina Vylomova, **Fei Liu**, and Timothy Baldwin. VectorWeavers at SemEval-2016 task 10: From incremental meaning to semantic unit (phrase by phrase). In *Proceedings of the 10th International Workshop on Semantic Evaluation (SemEval 2016)*, pages 871–877, San Diego, USA, 2016.

André Dittrich, Maria Vasardani, Stephan Winter, Timothy Baldwin, and **Fei Liu**. A Classification Schema for Fast Disambiguation of Spatial Prepositions. In *Proceedings of the 6th ACM SIGSPATIAL International Workshop on GeoStreaming (IWGS 2015)*, Seattle, USA, 2015.

**Fei Liu**, Afshin Rahimi, Bahar Salehi, Miji Choi, Ping Tan, and Long Duong. Automatic Identification of Expressions of Locations in Tweet Messages using Conditional Random Fields. In *Proceedings of the Australasian Language Technology Association Workshop 2014 (ALTW 2014)*, pages 171–176, Melbourne, Australia, 2014.

**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.

## Awards and Additional Certificates

<b>Best Poster Award</b> <i>Australasian Language Technology Association</i>	<b>Brisbane, Australia</b> <i>Dec, 2017</i>
<b>ALTA 2017 Student Scholarship</b> <i>Australasian Language Technology Association</i>	<b>Brisbane, Australia</b> <i>Nov, 2017</i>
<b>Google PhD Travel Scholarship Award</b> <i>Google</i>	<b>Melbourne, Australia</b> <i>Oct, 2017</i>
<b>Best Paper Award, 5th Annual Doctoral Colloquium</b> <i>Sch. of Computing and Information Systems, The University of Melbourne</i>	<b>Melbourne, Australia</b> <i>July, 2017</i>
<b>Conference Travel Scholarship</b> <i>The University of Melbourne</i>	<b>Melbourne, Australia</b> <i>April, 2017</i>
<b>Winning Team of Electronic Trading Challenge Hackathon</b> <i>Jane Street Capital</i>	<b>Melbourne, Australia</b> <i>Mar, 2017</i>
<b>Best Intern Presentation Award</b> <i>Xerox Research Centre Europe</i>	<b>Grenoble, France</b> <i>Sept, 2016</i>
<b>SIGIR Travel Scholarship</b> <i>SIGIR</i>	<b>Pisa, Italy</b> <i>July, 2016</i>
<b>3rd Prize, Microsoft Data Science Student Challenge Hackathon</b> <i>Microsoft, The University of Melbourne</i>	<b>Melbourne, Australia</b> <i>May, 2016</i>
<b>Australian Postgraduate Awards (APA Scholarship)</b> <i>Department of Education, Australian Government</i>	<b>Melbourne, Australia</b> <i>Feb, 2015–Feb, 2018</i>

## IELTS

General Training, Overall: 8.5/9.0

Listening: 8.5/9.0, Reading: 9.0/9.0, Writing: 8.5/9.0, Speaking: 7.0/9.0

Melbourne, Australia

Mar, 2013

## Oracle Certified Professional, Java SE 6 Programmer

Oracle Corporation

Tokyo, Japan

Apr, 2011

## Japanese Language Proficiency Test, Level 1 (Top Level)

Japan Educational Exchanges and Services

Tokyo, Japan

Dec, 2009

## Experience

### The University of Melbourne

Research Assistant (Casual)

Melbourne, Australia

May, 2017–Aug, 2017

**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.

### Xerox Research Centre Europe

Research Intern

Grenoble, France

May, 2016–Oct, 2016

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

### Royal Melbourne Institute of Technology

Research Assistant (Casual)

Melbourne, Australia

Sept, 2014–Feb, 2015

#### 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).

### The University of Melbourne

Research Assistant (Casual)

Melbourne, Australia

Sept, 2014–Dec, 2014

### Hitachi Government & Public Corporation System Engineering, Ltd.

Software Engineer (Full-Time)

Tokyo, Japan

Oct, 2008–June, 2012

#### 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)

### Hitachi Beijing Tech Information Systems Co.,Ltd

Software Engineer (Intern)

Beijing, China

Feb, 2008–Aug, 2008

## Languages

### Name

Chinese

English

Japanese

### Proficiency

Native or Bilingual Proficiency

Full Professional Proficiency

Full Professional Proficiency

## Programming Skills

- Primary language: Python, Java
- Knowledge of: TensorFlow, Keras, Theano,  $\text{\LaTeX}$ , C/C++, JavaScript, jQuery, HTML, CSS, Linux, Struts, Spring, Hibernate
- GitHub: <https://github.com/liuflly>