Fei Liu | Resumé

•The University of Melbourne
•Ph.D. Candidate (Natural Language Processing, Deep Learning)
•Supervisors: Tim Baldwin, Trevor Cohn
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Australian citizen, eligible for US E-3 work visa

Education

The University of Melbourne — **Melbourne, Australia**
Doctor of Philosophy — *Feb, 2015–Present*
Natural Language Processing, Deep Learning

The University of Melbourne — **Melbourne, Australia**
Master of Software Systems Engineering, First Class Honours — *July, 2012–July, 2013*

Beijing University of Technology — **Beijing, China**
Bachelor of Computer Science and Technology — *Sept, 2004–July, 2008*

Selected Publications

Fei Liu, Luke Zettlemoyer, and Jacob Eisenstein. The Referential Reader: A Recurrent Entity Network for Anaphora Resolution. In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics (ACL 2019)*, pages 5918–5925, Florence, Italy, 2019.

Minghao Wu, **Fei Liu**, and Trevor Cohn. 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)*, pages 2850–2856, 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.

Experience

Facebook AI Research **Seattle, USA**
Research Intern *Sept, 2018–Jan, 2019*
Research Topic and Achievements: Coreference resolution, memory-enhanced deep learning models, paper published at ACL 2019

The University of Melbourne **Melbourne, Australia**
Research Assistant (Casual) *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 (now NAVER LABS Europe) **Grenoble, France**
Research Intern *May, 2016–Oct, 2016*
Research Topic and Achievements: Memory Networks, deep learning approach for personality trait recognition, 3 papers published at EACL 2017

Royal Melbourne Institute of Technology **Melbourne, Australia**
Research Assistant (Casual) *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 **Melbourne, Australia**
Research Assistant (Casual) *Sept, 2014–Dec, 2014*

Hitachi Government & Public Corporation System Engineering, Ltd. **Tokyo, Japan**
Software Engineer (Full-Time) *Oct, 2008–June, 2012*
- Participated (as a core developer) in the development of the *GOOD-DESIGN-AWARD*-winning and *KIDS-DESIGN-AWARD*-winning accessibility tool *ZoomSight* (No.1 in market share), a Japanese NLP web application for the vision impaired, capable of adding phonetic scripts to and reading the contents of HTML pages

Awards and Additional Certificates

Best Short Paper Award **Tianjin, China**
ACM SIGIR International Conference on the Theory of Information Retrieval *Sept, 2018*

Best Poster Award — **Brisbane, Australia**
Australasian Language Technology Association — *Dec, 2017*

ALTA 2017 Student Scholarship — **Brisbane, Australia**
Australasian Language Technology Association — *Nov, 2017*

Google PhD Travel Scholarship Award — **Melbourne, Australia**
Google — *Oct, 2017*

Best Paper Award, 5th Annual Doctoral Colloquium — **Melbourne, Australia**
Sch. of Computing and Information Systems, The University of Melbourne — *July, 2017*

Conference Travel Scholarship — **Melbourne, Australia**
The University of Melbourne — *April, 2017*

Winning Team of Electronic Trading Challenge Hackathon — **Melbourne, Australia**
Jane Street Capital — *Mar, 2017*

Best Intern Presentation Award — **Grenoble, France**
Xerox Research Centre Europe — *Sept, 2016*

SIGIR Travel Scholarship — **Pisa, Italy**
ACM SIGIR Conference on Research and Development in Information Retrieval — *July, 2016*

3rd Prize, Microsoft Data Science Student Challenge Hackathon — **Melbourne, Australia**
Microsoft, The University of Melbourne — *May, 2016*

Australian Postgraduate Awards (APA Scholarship) — **Melbourne, Australia**
Department of Education, Australian Government — *Feb, 2015–May, 2019*

IELTS — **Melbourne, Australia**
General Training, Overall: 8.5/9.0 — *Mar, 2013*
Listening: 8.5/9.0, Reading: 9.0/9.0, Writing: 8.5/9.0, Speaking: 7.0/9.0

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 Proficiency
English	Full Professional Proficiency
Japanese	Full Professional Proficiency

Misc

- Primary language: Python, Java
- Knowledge of: TensorFlow, Keras, PyTorch, LaTeX, Linux
- Google Scholar: `https://bit.ly/2TxSU7e`
- GitHub: `https://github.com/liufly`
- Reviewer for: EMNLP 2017, 2018, 2019; CoNLL 2018; NAACL 2019; ACL 2019