Shamil Chollampatt

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Contact AS6 #04-13

Information Department of Computer Science

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RESEARCH INTERESTS General Areas: Natural language processing, machine learning, and deep neural networks.

Topics: Grammatical error correction, text scoring, machine translation, information retrieval, and

question answering.

EDUCATION National University of Singapore

Singapore

Doctor of Philosophy (Ph.D.)

August 2014 - Present

Thesis Title: Translation Models for Grammatical Error Correction

Advisor: Prof. Ng Hwee Tou

GPA: 4.3/5

National Institute of Technology Calicut

Calicut, India

Bachelor of Technology (B.Tech)

July 2009 – April 2013

Computer Science and Engineering GPA: 9.0/10 (Major GPA: 9.4/10)

Work Experience

Research Assistant

August 2018 - Present

Department of Computer Science, School of Computing,

National University of Singapore

- Working on cross-lingual information extraction and question answering.
- Working on deep learning models for grammatical error correction.

Graduate Assistant (Research)

January 2015 – May 2015

National University of Singapore

- Supervised a final year project on the non-word spelling correction.

Software Engineer

June 2013 - June 2014

Business Intelligence Division, Server Technologies Group

Oracle, Bengaluru, India

- Worked on the real-time decision product suite that help business make artificial intelligence (AI) assisted real-time decisions based on predictive modelling based on previous data.

TEACHING EXPERIENCE

National University of Singapore

Singapore

Graduate Assistant (Teaching)

August 2016 - December 2016

August 2014 - December 2014

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m CS1020}$ - Data Structures and Algorithms Module Coordinator: Prof. Tan Sun Teck

Graduate Assistant (Teaching) August 2015 - December 2015

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m CS1020E}$ - Data Structures and Algorithms Module Coordinator: Prof. Tan Sun Teck

Graduate Assistant (Teaching)

CS1020 - Data Structures and Algorithms Module Coordinator: Prof. Tan Sun Teck

Publications

- Shamil Chollampatt and Hwee Tou Ng. 2018. Neural quality estimation of grammatical error correction. In *Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (EMNLP 2018)*, Brussels, Belgium.
- Shamil Chollampatt and Hwee Tou Ng. 2018. A reassessment of reference-based grammatical error correction metics. In *Proceedings of the 27th International Conference on Computational Linguistics (COLING 2018)*, Santa Fe, New Mexico, USA.
- Shamil Chollampatt and Hwee Tou Ng. 2018. A multilayer convolutional encoder-decoder neural network for grammatical error correction. In *Proceedings of the 32nd AAAI Conference on Artificial Intelligence (AAAI 2018)*, New Orleans, Louisiana, USA.
- Shamil Chollampatt and Hwee Tou Ng. 2017. Connecting the dots: Towards human-level grammatical error correction. In *Proceedings of the 12th Workshop on Innovative Use of NLP for Building Educational Applications (BEA 2017)*, Copenhagen, Denmark.
- Shamil Chollampatt, Duc Tam Hoang, Hwee Tou Ng. 2016. Adapting grammatical error correction based on the native language of writers with neural network joint models. In *Proceedings of the 2016 Conference on Empirical Methods in Natural Language Processing (EMNLP 2016)*, Austin, Texas, USA.
- Shamil Chollampatt, Kaveh Taghipour, Hwee Tou Ng. 2016. Neural network translation models for grammatical error correction. In *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI 2016)*, New York, USA.
- Duc Tam Hoang, **Shamil Chollampatt**, Hwee Tou Ng. 2016. Exploiting n-best hypotheses to improve an SMT approach to grammatical error correction. In *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI 2016)*, New York, USA.

OTHER ACADEMIC Actively Learned Music Track Recommendation System Projects

December 2011

- Advisors: Bhiksha Raj and Rita Singh, Carnegie Mellon University, Pittsburgh, USA
 - Implemented a personalized song recommendation system. The audio signals of tracks were modeled using a GMM-UBM (Gaussian Mixture Model-Universal Background Model) and the recommender was an actively learned SVM updated via user-feedback.

Experimental Operating System

http://xosnitc.github.com

January 2012 – February 2013

- Advisor: Murali Krishnan, National Institute of Technology Calicut, India
- Designed, implemented, and documented an instructional toy operating system. It was deployed
 as part of undergraduate coursework at National Institute of Technology (NIT) Calicut and
 Indian Institute of Technology (IIT) Palakkad.

AWARDS AND ACHIEVEMENTS

- Dean's Graduate Research Excellence Award, School of Computing, National University of Singapore, 2018.
 - Awarded to select senior computing PhD candidates who "made significant research achievements during their PhD study" and "produced strong evidence of sustained research achievement".
- Research Achievement Award, School of Computing, National University of Singapore, 2016. Awarded to PhD students "who have achieved outstanding research performance" in a year.
- NUS Graduate School for Integrative Sciences and Engineering, 2014–2018.
 NGS scholarship is a prestigious scholarship "awarded to talented students with an aptitude for innovative, high calibre PhD research".
- All-India 29th Rank (99.98th percentile) in the Graduate Aptitude Test for Engineering (GATE), 2014 for computer science and engineering.

INVITED TALKS

Correcting Language Errors using Machine Translation Techniques

- Workshop on Technology Enhanced Learning, 9th Global Wordnet Conference (GWC 2018). Singapore. January, 2018.
- NUS School of Computing Research Talk. NUS. March 2018.

SERVICE

- Reviewer: ACL 2018.
- Program Committee (PC): ACL 2017, IJCNLP 2017, BEA Workshops 2017, 2018, AAAI 2018, 2019; NAACL 2018.

AFFILIATIONS/ VOLUNTEER ACTIVITES

- Member, Association of Computational Linguistics, 2016-2017
- Vice Chair, ACM Student Chapter, National Institute of Technology Calicut, 2013
- Lead Organizer, FOSSMeet 2010, 2011 and 2013 at National Institute of Technology Calicut.

SKILLS

- Programming: Python, C/C++, Java, PHP, HTML/CSS, Bash, MATLAB
- Libraries/Toolkits: PyTorch, Theano, Moses, scikit-learn, OpenNLP, Weka, LIBSVM, SVM light
- Web APIs: Google Plus, Facebook API
- Tools: Git, LATEX