# Shamil Chollampatt

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Contact AS6 #04-13

Department of Computer Science Information

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http://shamilcm.github.io

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.

National University of Singapore EDUCATION

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

July 2009 - April 2013

Bachelor of Technology (B. Tech) 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

June 2013 - June 2014

National University of Singapore

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

Software Engineer 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

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

Graduate Assistant (Teaching) August 2015 - December 2015

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

Graduate Assistant (Teaching) August 2014 - December 2014

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 Scholarship, 2014–2018.
  - NGS scholarship is a prestigious scholarship "awarded to talented students with an aptitude for innovative, high calibre PhD research".
- All-India 29<sup>th</sup> Rank (99.98<sup>th</sup> 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.
- Research Talk, NUS School of Computing, 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, 2016-2018
- Vice Chair, ACM Student Chapter, National Institute of Technology Calicut, 2013
- Lead Organizer, FOSS (Free and Open Source Software) Meet 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