

# ZHEWEI SUN

zheweisun [at] cs.toronto.edu | <http://www.cs.toronto.edu/~zheweisun/>

## EDUCATION

---

- University of Toronto, Toronto, Canada** **Sep 2018 - Present**  
• Ph.D. in Computer Science **GPA: 4.0/4.0**
- Georgia Institute of Technology, Atlanta, USA** **Aug 2016 – May 2018**  
• M.S. in Computer Science – Specialization in Machine Learning **GPA: 4.0/4.0**  
• **Selected Coursework:** Natural Language Processing, Deep Learning, Machine Learning, Artificial Intelligence, Advanced Computer Vision, High Performance Computer Architecture
- University of Waterloo, Waterloo, Canada** **Sep 2012 – Jun 2016**  
• B.S. in Computer Science with Economics Minor **GPA: 93.38%**  
• Graduated with Distinction – Dean’s Honours List  
• **Selected Coursework:** Artificial Intelligence, Machine Learning, Medical Image Processing, Computational Audio, Graphics, Network, Security, Architecture, Database, Data Structure and Algorithms, Probability & Statistics

## PUBLICATIONS

---

2. **Slang Detection and Identification**
  - *Zhengqi Pei, **Zhewei Sun**, Yang Xu*
  - In *Proceedings of the 2019 Conference on Computational Natural Language Learning*. CoNLL 2019.
1. **Slang Generation as Categorization**
  - ***Zhewei Sun**, Richard Zemel, Yang Xu*
  - In *Proceedings of the 41st Annual Meeting of the Cognitive Science Society*. CogSci19.

## SELECTED AWARDS

---

- Cecil and Edna Cotton Scholarship (2015)
- University of Waterloo - President’s Research Award (2015)
- University of Waterloo - President’s Scholarship of Distinction (2012)
- Bronze Award - Canadian Computing Competition Stage Two (2011)

## EXPERIENCE

---

- University of Toronto – Research Assistant** **Sep 2018 – Present**  
• Research on machine understanding of informal languages, Advisor: Professor Yang Xu  
• Aim to give downstream NLP systems the capability to comprehend and generate informal languages like slang.
- University of Toronto – Teaching Assistant** **Sep 2018 – Present**  
• TA for Graduate level Natural Language Computation (CSC2511/401 - Spring 2019) and Computational Linguistics (CSC2501/485- Fall 2018)  
• Responsible for grading problem sets and addressing student questions on online forums
- Georgia Tech Computational Linguistics Lab – Graduate Research Assistant** **Aug 2017 – May 2018**  
• Discourse Neural Machine Translation and Language Modeling, Advisor: Professor Jacob Eisenstein  
• Aim to improve neural translation systems to better account for discourse relationships in documents  
• Incorporated discourse information into an LSTM language model to improve performance on document level data  
• Implemented and experimented with various state-of-the-art language models and neural translation models using Dynet and recent machine translation packages (Lamtram, OpenNMT)
- Georgia Tech – Graduate Teaching Assistant** **Aug 2017 – May 2018**  
• TA for Graduate level Natural Language Processing (CS7650 - Spring 2018) and Machine Learning for Trading (CS7646 - Fall 2017)  
• Responsible for designing problem sets, grading, holding office hours, and addressing student questions on an online forum

**Georgia Tech Sonification Lab – Research & Development Studio****Aug 2016 – Dec 2016**

- Heads-up Displays in Driving Simulator, PI: Professor Bruce. N. Walker
- Designed and implemented HUD widgets in a driving simulator to be used in a driving study, using C#
- Expanded the experimental capability of the simulator by adding remote controls and hardware inputs via LAN
- Assisted in designing user studies to evaluate the effectiveness of HUDs for Eco-Driving

**University of Waterloo – CS Undergraduate Research Assistant****Sep 2015 – Dec 2015**

- Computational Finance on GPU systems, Supervisor: Professor Justin W. L. Wan
- Implemented and analyzed Monte Carlo option pricing algorithms on a GPU architecture, using C++ and CUDA
- Incorporated Low Discrepancy Sequence (LDS) methods to improve the rate of convergence

**IBM Canada – Software Engineering Intern****May 2013 – Aug 2013**

- Developed new score-carding features and enhancements for the Cognos TM1 suite, an enterprise analytics engine used for strategic business planning, using Java and JavaScript
- Created a simulated server infrastructure to unit test web-clients
- Performed large code refactoring tasks to improve the maintainability of the software

**PROGRAMMING LANGUAGES / PACKAGES**

---

- Proficient: Java, C, C++, Python, Numpy, Matlab, Dynet, Lamtram, PyTorch
- Familiar: C#, XAML, JavaScript, CUDA, Scheme, R, Tensorflow, OpenNMT

**NATURAL LANGUAGES**

---

- English (Native), Mandarin (Native), Japanese (Intermediate)