

# Nabiha Asghar

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Location: Seattle, WA, USA

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- HIGHLIGHTS
- ◇ **Skills:** Natural Language Processing, Machine Learning, Deep Learning, Algorithms, Probabilistic Models, Python, AWS, Linux, Git, Technical Writing
  - ◇ **Experience:** NLP Engineer at *Textio*; NLP research collaborator at *Huawei*; Data Scientist at *ProNavigator*.
  - ◇ **Publications:** ICLR 2020, ICML Workshop 2019, ECIR 2018, \*SEM 2017, UAI 2015.
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- EDUCATION
- ◇ **University of Waterloo**, Waterloo, ON, Canada.  
Ph.D. in Computer Science (Sept 2014 - Dec 2019), GPA: 94.75%
  - ◇ **University of Waterloo**, Waterloo, ON, Canada.  
M.Math. in Combinatorics & Optimization (Sept 2011 - Dec 2012).
  - ◇ **Lahore University of Management Sciences**, Lahore, Pakistan.  
B.Sc. Honors. in Mathematics (2006-2010). CGPA: 3.91/4.00.

- SKILLS
- ◇ Natural Language Processing, Machine Learning, Deep Learning, Probabilistic Modeling, Algorithm Analysis, Technical Writing
  - ◇ Python (PyTorch, Keras), Java, Linux, SVN, Git, AWS

- RESEARCH
- ◇ **N. Asghar**, I. Kobyzev, J. Hoey, P. Poupart, M.B. Sheikh. *Generating Emotionally Aligned Responses in Neural Dialogue Systems using Affect Control Theory*. arXiv preprint arXiv:2003.03645, 2020.
  - ◇ **N. Asghar**, L. Mou, K. A. Selby, K. D. Pantasdo, P. Poupart, X. Jiang. *Progressive Memory Banks for Incremental Domain Adaptation*. International Conference on Learning Representations (ICLR), 2020.
  - ◇ **N. Asghar**, P. Poupart, J. Hoey, X. Jiang, L. Mou. *Affective Neural Response Generation*. 40th European Conference on Information Retrieval (ECIR), 2018.
  - ◇ **N. Asghar**, P. Poupart, X. Jiang, H. Li. *Deep Active Learning for Dialogue Generation*. 6th Joint Conference on Lexical and Computational Semantics (\*SEM), 2017.
  - ◇ **N. Asghar**. *Automatic Extraction of Causal Relations from Natural Language Texts: A Comprehensive Survey*. arXiv:1605.07895, May 2016.
  - ◇ **N. Asghar**. *Yelp Dataset Challenge: Review Rating Prediction*. arXiv:1605.05362, 2016.
  - ◇ **N. Asghar**, J. Hoey. *Intelligent Affect: Rational Decision Making for Socially Aligned Agents*. 31st Conference on Uncertainty in Artificial Intelligence (UAI), 2015.
  - ◇ **N. Asghar**, J. Hoey. *Monte-Carlo Planning for Socially Aligned Agents using Bayesian Affect Control Theory*. University of Waterloo, Technical Report # CS-2014-21, 2014.
  - ◇ **N. Asghar**. *Grötzsch's Theorem*. MMath Dissertation, University of Waterloo, 2013.

- RELEVANT EXPERIENCE
- ◇ **Software Engineer - NLP**, *Textio, Inc* (Aug 2019 – Apr 2020).  
Building predictive solutions for Textio's augmented writing platform using machine learning and mathematical modeling.

- ◇ **Graduate Researcher**, *Vector Institute for AI, Canada* (Feb 2018 – Feb 2019).  
Researching machine learning techniques for dialogue systems.
- ◇ **Data Scientist - NLP**, *ProNavigator, Canada*, (Mar 2017 – Aug 2018).  
Developed conversational AI for customer support (insurance domain).
- ◇ **Graduate Research Assistant**, *Univ. Waterloo, Canada* (May 2016 – Dec 2019).  
Researching Neural Network algorithms for Natural Language Processing, in collaboration with Noah's Ark Lab, Huawei.
- ◇ **SR&ED Technical Writer**, *BeneFACT Consulting, Canada* (May 2015 – Apr 2017).  
Wrote 150+ SR&ED technical reports for over 50+ companies.
- ◇ **Research Associate**, *Comp. Health Informatics Lab, Univ. Waterloo* (Jan – June 2014)  
Explored emotion modeling in human-computer interaction via continuous POMDPs.

HONORS &  
AWARDS

- ◇ **Ontario Graduate Scholarship**, 2015 – 2016, 2017 – 2019.
- ◇ **President's Graduate Scholarship**, Univ. Waterloo, 2015 – 2016, 2017 – 2019.
- ◇ **Huawei Distinguished Research Collaboration Award**, 2015 – 2016.
- ◇ **David R. Cheriton Graduate Scholarship**, Univ. Waterloo, 2016 – 2018.
- ◇ **Gold Medal (Mathematics)**, BSc. Hons., Lahore Univ. Management Sciences, 2010.