

# Nabiha Asghar

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HIGHLIGHTS

- ◇ **Skills:** Machine Learning, Deep Learning, Natural Language Processing, Technical Writing, Probability/Statistics, Python, AWS, SQL, Linux.
- ◇ **Experience:** Post-graduate Affiliate at Vector Institute for AI, Deep NLP research collaborator at Huawei's *Noah's Ark Lab*; Data Scientist at ProNav Technologies.
- ◇ **Publications:** *Affective Neural Response Generation* (ECIR'18); *Deep Active Learning for Dialogue Generation* (\*SEM '17); *Intelligent Affect: Rational Decision-making for socially aligned agents* (UAI '15).

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EDUCATION

- ◇ **University of Waterloo**, Waterloo, ON, Canada.  
Ph.D. in Computer Science (Sept 2014 - Present), 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.

RELEVANT TECHNICAL SKILLS

- ◇ Machine Learning, Deep Learning, Probabilistic Modeling, Natural Language Processing, Algorithm Analysis, Technical Writing
- ◇ Python, Lua, MATLAB, Java, Bash, Linux, SQL, SVN, Git, AWS

PUBLICATIONS

- ◇ N. Asghar, P. Poupart, J. Hoey, X. Jiang, L. Mou. *Affective Neural Response Generation*. 40th European Conference on Information Retrieval (ECIR), Mar 2018.
- ◇ N. Asghar, P. Poupart, X. Jiang, H. Li. *Deep Active Learning for Dialogue Generation*. 6th Joint Conference on Lexical and Computational Semantics (\*SEM), Aug 2017.
- ◇ N. Asghar. *Automatic Extraction of Causal Relations from Natural Language Texts: A Comprehensive Survey*. arXiv preprint arXiv:1605.07895, May 2016.
- ◇ N. Asghar. *Yelp Dataset Challenge: Review Rating Prediction*. arXiv preprint arXiv:1605.05362, May 2016.
- ◇ N. Asghar, J. Hoey. *Intelligent Affect: Rational Decision Making for Socially Aligned Agents*. 31st Conference on Uncertainty in Artificial Intelligence (UAI), July 2015.
- ◇ N. Asghar, J. Hoey. *Monte-Carlo Planning for Socially Aligned Agents using Bayesian Affect Control Theory*. University of Waterloo School of Computer Science, Technical Report # CS-2014-21, December 2014.

WORK EXPERIENCE

- ◇ **Student Research Affiliate**, *Vector Institute for AI*, (Feb 2018 – Present).  
Researching machine learning techniques for dialogue systems.
- ◇ **Data Scientist**, *ProNavigator Technologies Ltd.*, (Mar 2017 – Present).  
Developing conversational AI for the insurance domain [Part-time].

- ◇ **Graduate Research Assistant**, *University of Waterloo*, (May 2016 – Present).  
Researching Neural Network algorithms for Natural Language Processing, in collaboration with Noah's Ark Lab, Huawei.
- ◇ **SR&ED Technical Writer**, *BeneFACT Consulting Group Inc.*, (May 2015 – Present).  
Wrote over 150 SR&ED technical reports for over 45 companies.
- ◇ **Research Associate**, *Comp. Health Informatics Lab, Univ. of Waterloo* (Jan – June 2014)  
Developed a new algorithm for solving large continuous POMDPs.
- ◇ **Software Development Intern**, *iHealth: Disease Surveillance System* (May – Aug 2008).  
Implemented clustering algorithms to investigate the causes of Tuberculosis prevalence.

HONORS &  
AWARDS

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