Department of Computing Science,
3-05 RLAI - Computing Science Centre
University of Alberta, Edmonton, CA

Muhammad Zaheer

(780) 710-91100
mzaheer@ualberta.ca
https://muhammadzaheer.github.io

Research Interests

I am broadly interested in **reinforcement learning** as an approach to building autonomous agents. I am currently working on the problem of sample-efficient reinforcement learning with a focus on **model-based RL** techniques.

Publications

- Y Pan, M Zaheer, A White, A Patterson, M White. **Organizing Experience: A Deeper Look at Replay Mechanisms for Sample-based Planning in Continuous State Domains.** International Joint Conference on Artificial Intelligence (IJCAI), 2018
- Y Wan*, M Zaheer*, M White, RS Sutton. **Model-based Reinforcement Learning with Non-linear Expectation Models and Stochastic Environments**. ICML Workshop on Prediction and Generative Modeling in Reinforcement Learning, 2018

Education

University of Alberta — **Sep 2017 – Present**

M.S. Computer Science

- Cumulative GPA: **4.00/4.00**
- Supervisors: Professor **Martha White** & **Erik Talvitie**

B.S. Computer Science — **NUST** — **Sep 2012 – Jun 2017**

- Cumulative GPA: **4.00/4.00**

Relevant Courses

- Reinforcement Learning
- Artificial Intelligence
- Machine Learning
- Optimization Principles for RL
- Algorithm Design & Analysis
- Operating Systems

Employment

Research Assistant — **University of Alberta** — **May 2018 – Present**
Reinforcement Learning and Artificial Intelligence (RLAI) Lab

Graduate Teaching Assistant — **University of Alberta** — **Sep 2017 – Apr 2018**
Course: Introduction to the Foundation of Computation - II

Research Intern — **NUST** — **Jul 2016 – May 2017**
Computer Vision group

Research Intern — **EPFL, Switzerland** — **Jul 2015 - Sep 2015**
Distributed Information Systems Laboratory (LSIR)

Awards and Honors

- **Canadian Undergraduate Fellowship:** Awarded to only 1 undergraduate student from each batch
- **Academic Distinction:** Awarded for graduating with a CGPA of 4.0 out of 4.0
- **Best Final Year Project:** Awarded to only 1 student project in the graduating cohort
- **Global-UGRAD exchange scholarship:** Awarded by US Dept. of State (3% acceptance rate)
- **ITCSC-INC Winter School:** Organized by The Chinese University of Hong Kong (Selection and Travel Grant)

Technical Skills

- Technologies: C/C++, Java, Python, Bash, PyTorch, TensorFlow