

# Hussein Mozannar

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<https://www.husseinmozannar.github.io/>

## EDUCATION

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- **Massachusetts Institute of Technology - PhD** Cambridge, Massachusetts  
*PhD in Social and Engineering Systems* Sept. 2019 – Present
  - **American University of Beirut - BE** Beirut, Lebanon  
*Bachelors in Computer and Communications Engineering, Major GPA: 4.0* Sept. 2015 – June. 2019
- Coursework:* Statistical Learning, Reinforcement Learning, Estimation and Decision Theory, Design and Analysis of Algorithms, Operating Systems, Markov Chains, Information Theory, Real Analysis, Linear Algebra II and Topology

## PUBLICATIONS

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- **Neural Arabic Question Answering**  
Hussein Mozannar, Karl El Hajal, Elie Maamary, Hazem Hajj; Proceedings of the Fourth Arabic Natural Language Processing Workshop at ACL 2019 (WANLP 2019)
- **From Fair Decision Making To Social Equality**  
Hussein Mouzannar, Mesrob I. Ohannessian, Nathan Srebro; Proceedings of the ACM 2019 Conference on Fairness, Accountability, and Transparency (ACM FAT\* 2019)
- **Damage Identification in Social Media Posts using Multimodal Deep Learning**  
Hussein Mouzannar, Yara Rizk, Mariette Awad; Proceedings of the 15'th International Conference on Information Systems for Crisis Response and Management (ISCRAM 2018)

## EXPERIENCE

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- **Toyota Technological Institute at Chicago** Chicago, IL  
*Visiting Student/Intern* May 2018 – Aug. 2018
  - **Long Term Effects of Fair Decision Making** Modelled the long term impact of enforcing fairness conditions in machine learning. Advised by Nathan Srebro and Mesrob Ohannessian
- **American University of Beirut** Beirut, Lebanon  
*Undergraduate Research and Teaching Assistant* Sept. 2016 – May 2019
  - **Multimodal Classification for Humanitarian Computing** Developed a multimodal deep learning algorithm for captioned image classification for disaster situations and created a social media tool for crisis monitoring
  - **Multi-Agent Reinforcement Learning** Developed an actor-critic algorithm with a modular action-value function and created a simulation environment for heterogeneous package delivery problems
  - **Teaching Assistant** EECE 231 Introduction to Programming lab instructor

## PROGRAMMING SKILLS

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- **Languages:** Python, C++, R, C, Java, SQL, Matlab
- **Technologies:** Tensorflow, Git, Linux, Qt

## AWARDS

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- **Dean's Award For Best Innovative Software Development Project** Awarded for my Final Year Project on Neural Arabic Question Answering
- **Dean's Honor List** Academic years 2015-2019

## PERSONAL INTERESTS

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- Running, Soccer, Electronic Music, Languages (French, Arabic, English)