YangJunqing Qiao junqingqiao@gmail.com Webpage (978) 905-9534

> Address 10 Robinson Rd Westford, MA 01886 United States

# YangJunqing Qiao

### **CS Grad Student**

**About Me** I am a multidisciplinary **mathematics and computer science student** with an interest in understanding, building, scaling, and advancing **systems for data driven solutions**. My main areas of focus are **machine learning and artificial intelligence** with a skill set biased towards designing, deploying, and upgrading **advanced statistical models**.

### **Education**

#### University of Massachusetts, Amherst

MS in Computer Science (September 2018 - February 2020) BS in Computer Science (September 2014 - June 2018) BS in Mathematics (September 2014 - June 2018)

# **Experience**

June 2019 - August 2019, *Software Engineer Intern*, Raytheon Detailed achievements:

- **Decreased latency of operator commands** by parallelizing the main status polling thread of radar operating software
- **Streamlined software testing process** by developing a hardware emulator to simulate operator commands.
- **Increased the validity of standard testing procedure** by helping to identify and resolve long standing segfault bug.

June 2017 - August 2017, *Junior Investigator*, REU UMass Amherst (funded by NSF)

Detailed achievements:

- Authored an unpublished survey paper detailing the insights circuit and complexity theory have on the power and behavior of neural networks
- Performed a great deal of both directed and self directed research.

# **Projects**

#### 2019, Fake New Generation, NLP Final Project

Built a **transformer that learns** from a corpus of fake, inflammatory, and real news articles to generate either 'honest' or 'inflammatory' **headlines**. (*Python, Pytorch, Google Colab*)

#### 2018, Gaussian Normalization, Neural Networks Final Project

Building on the idea of batch and copula normalization, I investigated and drew conclusions about the effectiveness of **normalizing an arbitrary layer of a neural network with a Gaussian distribution**. (Python, Pytorch, Google Colab)

### **Skills**

#### **Programming**

JavaShellPythonC++PHPMatlab

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# **Interests**

## **Professional**

Data analysis, software design, economics, optimization, security,

#### **Personal**

Violin, swimming, cooking