## **CONGZHENG SONG**

301 Gates Hall

Cornell University

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http://csong27.github.io

### **EDUCATION**

Cornell University, Ithaca, NY

2016 - present

PhD student in Computer Science

Research Interests: Machine Learning and its Applications

Emory University, Atlanta, GA

2012 - 2016

Bachelor of Science in Computer Science with Highest Honor

GPA: 3.96

Thesis: Using Deep Recurrent Neural Networks to Estimate Influenza Prevalence from Mobile Phone Records

## RESEARCH EXPERIENCE

### **Undergraduate Research Assistant**

2015 - 2016

Department of Math & CS, Emory University

Adviser: Prof.Ymir Vigfusson

- ♦ Extracted a set of metrics to describe human behavior from mobile phone records.
- ♦ Developed a deep learning model for individual sickness prediction given behavioral features.

### **Undergraduate Research Assistant**

2015 - 2016

Department of Bioinformatics, Emory University

Adviser: Prof.Lee Cooper

- ♦ Developed a neural network combining with Cox regression for survival analysis.
- ♦ Applied covolutional neural network in cancer cell image classification.

### **Summer Research Internship**

2015

Department of Computer Science, UC Irvine

Adviser: Prof.Sharad Mehrotra

- ♦ Developed a web framework for collecting, querying and visualizing sensor data.
- ♦ Involved in implementing backend server modules to handle user's request for processing sensors' data on multiple platforms.

### **Undergraduate Research Fellow**

2014 - 2015

Institute for QuanTM, Emory University

Adviser: Prof.Clifford Carrubba

♦ Developed a program for collecting vote from Mexican government's documents.

# **PUBLICATIONS**

- 1. Safoora Yousefi, **Congzheng Song**, Nelson Nauata, Lee Cooper. Learning Genomic Representations to Predict Clinical Outcomes in Cancer. In International Conference on Learning Representation Workshop (ICLR), San Juan, Puerto Rico, 2016.
- 2. Erik Reinertsen, Niclas Palmius, **Congzheng Song**, Leon Danon, Gudrun Saemundsdottir, Olafur Magnusson, Gari D Clifford, Ymir Vigfusson. *Mobile Phone Activity and Population Movement During an Influenza A (H1N1) Outbreak in Iceland*. In *Sleep Medicine and Chronobiology Summer Schools Poster Session*, Oxford, UK, 2015.

## TEACHING EXPERIENCE

### **Undergraduate Teaching Assistant**

2013 - 2014

Adviser: Prof.Karl Hagen

Department of Chemistry, Emory University

- $\diamond\,$  Helped students with problems they occurred during lab experiments.
- ♦ Taught students the basic rules for chemistry lab.

## **AWARDS**

1. Trevor Evans Award20162. Deborah Jackson Award2015

3. Dean's List 2012 – 2016

## **SKILLS**

Languages: Chinese (Native), English (Professional), Japanese (Basic)

Programming and Scripting Languages: Python, Java, C, JavaScript, HTML & CSS, LATEX

Software and Tools: Matlab, Theano, Node.js, MongoDB, PostgreSQL

# **SELECTED COURSEWORK**

**Computer Science**: Natural Language Processing, Data Mining, Artificial Intelligence, Theory of Computing, Discrete Structures, Competitive Programming, Computer Security

**Mathematics**: Probabilities and Statistics, Partial Differential Equations, Numerical Analysis, Optimization Theory, Differential Equations, Linear Algebra