

# CONGZHENG SONG

605 Asbury Cir  
Emory University  
Atlanta, GA, 30322

(678)-882-8741  
csong27@outlook.com  
<http://csong27.github.io>

## EDUCATION

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**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

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**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 convolutional 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

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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

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**Undergraduate Teaching Assistant** 2013 - 2014  
Department of Chemistry, Emory University Adviser: Prof. Karl Hagen  
◇ Helped students with problems they occurred during lab experiments.  
◇ Taught students the basic rules for chemistry lab.

## AWARDS

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Trevor Evans Award	2016
Deborah Jackson Award	2015
Dean's List	2012 – 2016

## SKILLS

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

**Programming and Scripting Languages:** Python, Java, C, JavaScript, Matlab,  $\text{\LaTeX}$

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

## SELECTED COURSEWORK

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

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