CONGZHENG SONG

Curriculum Vitae

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Contact

301 Gates Hall
Cornell University
Ithaca, NY, 14850

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Education

Cornell University, Ithaca, NY — 2016 – present
PhD student in Computer Science
Research Interests: Security and Privacy in Machine Learning

Emory University, Atlanta, GA — 2012 – 2016
Bachelor of Science in Computer Science with Highest Honor
Thesis: *Using Deep Recurrent Neural Networks to Estimate Influenza Prevalence from Mobile Phone Records*

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.

Research Experience

Graduate Research Assistant — 2016 – present
Department of Computer Science, Cornell University — Adviser: Prof. Vitaly Shmatikov
∞ Exploring privacy leakage in machine learning models.

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.

Teaching Experience

CS 3410 Graduate TA — Fall 2016
Department of Computer Science, Cornell University — Adviser: Prof. Anne Bracy

Chem 141 Undergraduate Lab TA — Fall 2013
Department of Chemistry, Emory University — Adviser: Prof. Karl Hagen

Awards

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

Skills

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

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

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

Selected Coursework

Computer Science: Analysis of Algorithm, Bayesian Machine Learning, Advanced Programming Languages , 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