

CONGZHENG SONG

Curriculum Vitae

Last Updated: 9th February, 2017

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. Reza Shokri, Marco Stronati, **Congzheng Song**, Vitaly Shmatikov. *Membership Inference Attacks against Machine Learning Models*. In *38th IEEE Symposium on Security and Privacy (S&P)*, San Jose, California, 2017. (Acceptance rate: 13.3%)
2. 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.
3. 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 convolutional neural network in cancer cell image classification.

Undergraduate Research Intern Summer 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

Graduate Teaching Assistant CS 3410: Computer System Organization and Programming	Fall 2016 Instructor: Prof. Anne Bracy
Undergraduate Lab Teaching Assistant Chem 141: General Chemistry I	Fall 2013 Instructor: 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, Ordinary Differential Equations, Linear Algebra