

# Siwei "Robert" Li

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## Education

Fall 2016 - Present

**Georgia Institute of Technology**, Atlanta, GA

*B.S. in Computer Science*

Expected Graduation: May 2020

## Industry Experience

Summer 2017

**Panasonic Automotive Systems**, Peachtree City, GA

*Software Engineering Intern*

Developed an extensible visualization tool in React/Redux/Node/d3 that enables engineers to create automated sequences that generate various analysis reports; estimated to reduce 30% of testing time.

## Academic Research Experience

Fall 2017 - Present

**Georgia Institute of Technology**, Atlanta, GA

*Undergraduate Research Assistant, School of Computational Science and Engineering*

Advisor: Polo Chau

Member of the Polo Club of Data Science, where we innovate at the intersection of data mining and human-computer interaction (HCI) to synthesize scalable, interactive, and interpretable tools that amplify human's ability to understand and interact with big data.

Spring 2017

**Georgia Institute of Technology**, Atlanta, GA

*Research Experiences for Undergraduates (REU), School of Interactive Computing*

Mentor: Mark Guzdial

Member of the Contextualized Support for Learning Lab, where we develop interactive technologies for K-12 Computer Science education.

## Publications

KDD'18

**Shield: Fast, Practical Defense and Vaccination for Deep Learning using JPEG Compression**

Nilaksh Das, Madhuri Shanbhogue, Shang-Tse Chen, Fred Hohman, **Siwei Li**, Li Chen, Michael E. Kounavis, Duen Horng Chau

*ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD). Aug 19, 2018. London, UK.*

Track: Applied Data Science **Audience Appreciation Award Runner Up**

KDD'18

**Compression to the Rescue: Defending from Adversarial Attacks Across Modalities**

Nilaksh Das, Madhuri Shanbhogue, Shang-Tse Chen, Fred Hohman, **Siwei Li**, Li Chen, Michael E. Kounavis, Duen Horng Chau

*ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD). Aug 19, 2018. London, UK.*

Track: Project Showcase

## Ongoing Projects

Fall 2017 - Present

**Argo Graph**

*Large-scale Graph Visualization Tool*

Developing the next cross-platform interactive graph visualization tool capable of handling million-edge scale network data using latest web technology.

Spring 2018 - Present

**mHealth Visual Discovery Dashboard**

*Part of NIH's MD2K (Mobile Sensor Data-to-Knowledge) Initiative*

Developing a predictive visualization dashboard for timeseries data collected from mobile devices.

## Past Projects

Spring 2018

**Smart Meter Data Portal**

*Part of NSF Smart Grid Data Analytics Spoke Project*

Designed and developed a web-based data-sharing platform for energy researchers using Smart Grid.

Spring 2017

**Runestone Interactive Ebook**

*Help students learn CS interactively*

Improved an open-source K-12 interactive ebook platform for teaching computer science used by 500+ institutions around the world.

## Activities

Spring 2017 - Present

**HackGT**, Atlanta, GA

*Organizing Largest College Hackathon in the Southeast (1000+ Students)*

Member of the HackGT organization where we organize various hackathons and workshops at Georgia Tech. I build open source software for hackathon organizers worldwide, while teaching computer science and web development through events for beginners and high school students in underrepresented communities.

## Skills

Languages

Java, Python, JavaScript (ES6+), Kotlin, Swift, C, C++, PHP, SQL

Web

React, Redux, Node/Express, Electron, Flask, CodeIgniter, HTML, CSS, JQuery

Mobile

Android, Cordova, iOS/ARKit

Machine Learning

Scikit-Learn, Tensorflow

Data Visualization

D3, matplotlib

Miscellaneous

Docker, Bash, Gradle, Travis CI

