

# Siwei “Robert” Li

Looking for Summer 2019 Software Engineering Internship

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## Education

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**Georgia Institute of Technology**, Atlanta, GA  
*B.S. in Computer Science (GPA: 3.88/4.0)*

*Fall 2016 - (Expected) Spring 2020*

## Experience

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**Georgia Institute of Technology**, Atlanta, GA  
*Undergraduate Research Assistant, School of Computational Science and Engineering*  
Advisor: Prof. Duen Horng (Polo) Chau

*Fall 2017 - Present*

Member of the Polo Club of Data Science, where I 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.

**Panasonic Automotive Systems**, Peachtree City, GA  
*Software Engineering Intern*

*Summer 2017*

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

**Georgia Institute of Technology**, Atlanta, GA  
*Research Experiences for Undergraduates (REU), School of Interactive Computing*  
Mentor: Prof. Mark Guzdial

*Spring 2017*

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

## Publications

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**Shield: Fast, Practical Defense and Vaccination for Deep Learning using JPEG Compression** *KDD'18*  
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**

**Compression to the Rescue: Defending from Adversarial Attacks Across Modalities** *KDD'18*  
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

## Selected Projects

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**Argo Graph**, *Large-scale Graph Visualization Tool* *Fall 2017 - Present*  
Developing the next cross-platform interactive graph visualization tool capable of handling **million-edge** scale network data using latest web technology.

**mHealth Visual Discovery Dashboard**, *Part of NIH's MD2K (Mobile Sensor Data-to-Knowledge) Initiative* *Spring - Fall 2018*  
Developed an analytics dashboard for timeseries health data collected from mobile devices. Integrated into NIH MD2K's Cerebral Cortex Data Analytics Platform.

**Smart Meter Data Portal**, *Part of NSF Smart Grid Data Analytics Spoke Project* *Spring 2018*  
Designed and developed a web-based data-sharing platform for energy researchers using Smart Grid.

## Selected Activities

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**HackGT Organizers Team**, Atlanta, GA *Spring 2017 - Present*  
*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.

## Selected Personal and Open Source Projects

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**HackGT/SponsorshipPortal**: Intelligent web portal for hackathon sponsors to search resumes of participants *Fall 2017 - Fall 2018*

**Beginners-Cordova-Tutorial**: Website teaching Apache Cordova development to beginners *Spring 2017*

**V-Plate**: Voice-controlled food delivery robot built with RaspberryPi 3 with an Android client *Spring 2017*

## Skills

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**Languages:** Java, Python, JavaScript (ES6+), Kotlin, Swift, C, C++, SQL, Bash

**Web:** React, Redux, Node/Express, Electron, Flask, Codelgniter, HTML, CSS, JQuery

**Mobile:** Android, Cordova, iOS/ARKit

**Data Science:** Machine Learning (scikit-Learn, Tensorflow), Data Visualization (D3, matplotlib)

**Miscellaneous:** Infrastructure (Docker, Vagrant), Build Systems (Gradle, npm, Webpack, Travis CI)