

# Siwei “Robert” Li

Web: siweili.org  
Github: RSLi  
Email: robertsiweili@gatech.edu

## Education

**Georgia Institute of Technology**, Atlanta, GA  
*B.S. in Computer Science (GPA: 3.88)*  
Expected Graduation: May 2020

Fall 2016 - Present

## Experience

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

Fall 2017 - Present

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

Spring 2017

## Publications

**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

**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

**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

**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

**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)