

Siwei “Robert” Li

Looking for Summer 2019 Software Engineering Internship

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Education

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

Fall 2016 - (Expected) Spring 2020

Experience

Georgia Institute of Technology, Atlanta, GA

Fall 2017 - Present

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.

Panasonic Automotive Systems, Peachtree City, GA

Summer 2017

Software Engineering Intern

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

Spring 2017

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.

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. Argo is used in **CSE 6242 Data and Visual Analytics** course, that **teaches over 1000 students** per year.

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 Cerebral Cortex Data Analytics Platform, a **\$11.8M project by NIH MD2K Center of Excellence**.

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, CodeIgniter, 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)