

Siwei “Robert” Li

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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

Google, San Francisco, CA

Summer 2019

Software Engineering Intern, Infrastructure Security and Privacy

Building a system that generates intuitive alerts for abnormal enterprise Google Doc access, where alerts are generated by anomaly detection using machine learning techniques.

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 science 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**.

Selected 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**

Selected Projects

Intel MLSPloit, Adversarial Machine Learning Research Platform

Fall 2018 - Spring 2019

Developed an extensible research platform for security and ML researchers to interactively construct transformation and evaluation pipelines.

NIH 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 using Kotlin and React. Integrated into Cerebral Cortex Data Analytics Platform, a \$11.8M project by **NIH MD2K Center of Excellence**.

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

Selected Personal and Open Source Projects

NSF Smart Meter Data Portal: Searchable Github-based data-sharing platform for energy researchers

Spring 2018

HackGT/SponsorshipPortal: Intelligent portal for hackathon sponsors to search resumes of participants

Fall 2017 - Fall 2018

On-campus Activities

VIP Project: Health Informatics on FHIR, Atlanta, GA

Fall 2018 - Present

Development Team Lead

Develop FHIR applications to improve Emergency Room and Triage efficiency. Currently working with Grady Memorial Hospital, the fifth-largest public hospital in the US, with one of the busiest ER in the country.

HackGT Organizers Team, Atlanta, GA

Spring 2017 - Present

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

Hold hackathons and workshops; make open source projects for event organizers; mentor beginners and high school students.

Selected Skills

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

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

Mobile: Android, Cordova, iOS/ARKit

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

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