

Siwei “Robert” Li

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Education

Georgia Institute of Technology, Atlanta, GA *Fall 2016 - (Expected) Spring 2020*
B.S. in Computer Science (GPA: 3.86/4.0)

Experience

Google, San Francisco, CA *Summer 2019*
Software Engineering Intern, Infrastructure Security and Privacy
Will be joining Google this summer.

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, C++, SQL, Bash, PHP, Go

Web: React, Redux, Node/Express, Electron, Django, Flask, CodeIgniter, 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)