

# Siyuan (Kelvin) Hu

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## EDUCATION

### Cornell University, College of Engineering

Ithaca, NY • Graduated Dec 2018

Master of Engineering in Computer Science

- GPA 3.6/4.0

### New York University Shanghai, College of Arts and Sciences

Shanghai, China • Graduated May 2017

Bachelor of Science in Computer Science, Minor in Mathematics, Minor in Business and Finance

- GPA 3.7/4.0 (Cum Laude)
- Dean's Undergraduate Research Fund Award (Summer 2015)

## WORK EXPERIENCE

### Dipole Tech ♦ *Blockchain Developer*

Shanghai, China • Nov 2019 – Mar 2020

- Worked on implementing Ethereum smart contracts using Solidity to provide data access and integrated a React-based content management system with Ethereum smart contracts using Web3 to read and write electric meter data.

### Uber Advanced Technologies Group ♦ *Software Engineer I*

Pittsburgh, PA • Mar 2019 – Nov 2019

- Worked under the AVMaps Applications team in building geospatial web tools that enable geo-specialists to produce high-definition maps for self-driving cars; used React/Redux as the frontend architecture, DeckGL for graphics rendering, and NebulaGL for geometric editing.

### Uber Advanced Technologies Group ♦ *Software Engineer Intern*

Pittsburgh, PA • May 2018 – Aug 2018

- Designed and implemented map production web tools for geo-specialists, such as the street-level panorama panel using camera images taken by the in-vehicle cameras and the traffic light labelling tool to collect data for triangulation.

### Energolabs ♦ *Front End Developer Intern*

Shanghai, China • Jan 2017 – Apr 2017

- Developed a management portal using React for a distributed peer-to-peer energy exchange platform to monitor electric meter data, manage user data, and visualize internal business data.

### New York University ♦ *Research Assistant*

New York, NY • May 2016 – Aug 2016

- Assisted a postdoctoral researcher at NYU Systems Group with writing OLTP benchmarks for a database research project that studies serializability and parallel execution in partially dependent transactions.

Work Authorization: H-1B Cap Exempt From Previous Employment

## SKILLS

**Frontend Development:** HTML5/CSS3/React/Redux/Webpack/Sass/D3/WebGL2

**Backend Development:** Node.js/Express/MongoDB/MySQL

**Mobile Development:** React Native

**Data Science:** Numpy/Pandas/PyTorch/Keras

**Programming Languages:** JavaScript/Python/Java

## PROJECTS

### Pedestrian Behavior Prediction

Fall 2018

Research project on predicting whether a pedestrian is about to cross the street based on a combination of individual features, global environment cues such as traffic lights and crosswalks, and metadata labels. Used Convolutional Neural Networks to extract features from continuous video frames of pedestrians crossing the street.

performance latencies using Gantt chart to identify the microservices that caused bottlenecks.

### Study Companion Robot

Fall 2017

Built a socially assistive robot that predicts whether participants are engaged in a writing task using a Hidden Markov Model trained on their number of keystrokes per minute, open browser tabs, and facial expressions.

### 3D Modeling Editor

Fall 2018

Built a web-based 3D modeling editor with JavaScript and WebGL that enables common geometric editing options, 3D transformations, and a cartoonish shading.

### Travel Planning for NYC Taxi Pickups

Summer 2016

Analyzed historical taxi pickups to study traffic and travel patterns to suggest users on proper timings and locations to get taxis.

### Detect Performance Issues in Microservices

Spring 2018

Analyzed performance bottlenecks of a microservice-based network that simulates the Netflix workflow and visualized

### Visualize Flickr Sharing Network

Fall 2016

Built a visual analytical tool with D3 to help Flickr users better perceive their sharing behavior on the social network.

## LEADERSHIP EXPERIENCE

### NYU Study Abroad Student Ambassador Program ♦ *Student Ambassador*

New York, NY • Jan 2016 – May 2016

- Planned events and organized regular town hall meetings for study abroad students from the Shanghai campus and the Abu Dhabi campus.

### NYU Alternative Breaks Program ♦ *Team Lead*

New York, NY • Sep 2015 – May 2016

- Organized weekly team discussions on educational issues around the world. Traveled to Monte Cristi, the Dominican Republic for a week-long teaching program to help local elementary students with English writing and speaking.