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 for downstream applications; integrated an admin management system with the smart contracts using Web3 to read and write electric meter data, electricity transaction data, and user 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.

Energo Labs ❖ *Front End Developer Intern*   **Shanghai, China • Jan 2017 – Apr 2017**
- Developed an admin management system 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 benchmarks for a database project that enables serializability as well as parallel execution for partially dependent transactions.

Work Authorization: H-1B Cap Exempt

SKILLS

Web Development: React/Redux/NodeJS/Express/Sass/WebGL	**Databases**: MySQL/MongoDB
Data Science: Numpy/PyTorch/R	**Programming Languages**: JavaScript/Python/Java
Mobile Development: React Native	**Blockchain**: Solidity/Web3

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.

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.

Detect Performance Issues in Microservices   **Spring 2018**
Analyzed performance bottlenecks of a microservice-based network that simulates the Netflix workflow and visualized 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, their open browser tabs, and their facial expressions.

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.

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.

Digital Express Challenge, Development Bank of Singapore ❖ *Second-Prize Winner*   **Shanghai, China • Jan 2015**
- Applied a business-hypothesis-driven methodology called Lean Startup to develop a product called WeJar, a family financial planning platform, during the competition.