Jiayuan Hong

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EDUCATION

University of Illinois, Urbana Champaign **Urbana, IL**
Bachelor of Science in Mathematics+Computer Science GPA: 3.94/4.00 *Aug 2021 - Dec 2023*

Xidian University (Transferred Out) **Shaanxi, China**
Computer Science GPA: 3.70/4.00 *Aug 2019 - June 2021*

INTERNSHIP

Zhejiang Uniview Technologies **Xian, China**
Backend Developer Intern *January 2021 - March 2021*

- Implement Uniview Cloud Service to provide service for professional IP **video surveillance** devices.
- Involve the comprehensive application of **SpringCloud**, Eureka, Kafka, Redis, Linux, distributed system.
- Assist Uniview Cloud Service in maintaining company's **database** using **MySQL** Programming Language.

COURSES PROJECTS

WechAt: A Chatting and Selling Products App *May 2022 – Now*
https://github.com/Einsgates/WechAt

- Provide a Platform for people to chat with each other including private session and public session as well as sell products.
- Use **Google Cloud** for MySQL and **Node.js** to implement the Backend functions. Advanced queries like Transcation and Procedure are also used to implement some complicated functions
- Use **Vue.js** to implement Frontend, including pages like message, login system, account, product, post, and chat session.

Risk Website Identification System *May 2020 – Oct 2020*
https://github.com/Einsgates/Web-Analysis

- Use **Client-side Honeypot System** to assist detection, allowing webpage code to run in a sandbox-like environment, and the dynamically executed JS code.
- Use **Prefetch-based Detection Methods** for phishing websites, using the difference between the topological structure of phishing websites and normal websites for identification
- Use **SVM** to construct a Classifier to realize station inspection

Monte Carlo simulation to estimate percolation threshold *May 2021 – July 2021*
https://github.com/Einsgates/Percolation

- Individually implemented a Percolation System and find the threshold of the value when the system suddenly becomes percolated.
- Use Monte Carlo Simulation and **Union-Find** to calculate the connectivity of the grid.
- Perform a series of computational experiments and provides a **95**% **Confidence Interval** for the percolation threshold.

SKILLS

- Focus: Software Development, Web Development, Full-stack development
- Technical Skills: Java, Python, C/C++, Vue, React, MySQL, MongoDB, Go
- Courses: Database System, Web Programming, Algorithms & Models of Computation, System Programming, Numerical Analysis, Data Structure, Real Analysis, Complex Variables