

Sihan Cai

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1 Brookings Drive, Saint Louis, MO

SUMMARY

- **Objective:** 2020 Summer Software Engineer Internship
Bachelor degree candidate has a wide range of internship experience and project experience, including Full Stack Development

EDUCATION

Washington University in St.Louis

Bachelor of Science in Computer Science; GPA: 3.5/4.0

Missouri, USA

Expected May 2021

Denison University

Bachelor of Art in Mathematics; GPA: 3.5/4.0

Ohio, USA

August 2016 - June 2019

SKILLS

- **Languages:** Java, HTML5/CSS3, Python, JavaScript, PHP, SQL
- **Database:** MySQL, MongoDB, Redis, PostgreSQL, HBase
- **Tools:** GIT, Kubernetes, Docker, Nginx, AWS, Elastic Search, Restful API, Google FileBase, Webpack
- **Framework:** SpringBoot/Spring MVC/Spring, Spring Data JPA, Spring Security, Hibernate, Mybatis, ReactJS, Vue, jQuery, JDBC
- **Test:** JUnit, Mockito

EMPLOYMENT EXPERIENCE

Unibit Inc: Similiar to Yahoo finance

Full-Stack Software Intern

Allston, MA

May 2019 - August 2019

- **Unibit API:** Java-based platform to offer standardized financial data and information
 - * Implemented web application based on **SpringBoot** to provide **900K** different format finance data including JSON and EXCEL
 - * Decomposed tables in third normal form (3NF), reducing data size to **10%**, optimizing complex query performance, saved **21%** query time
 - * Accomplished cache with **Redis**, increasing performance and reducing response time by **90%**
 - * Automated system deployment with **Docker**, **Nginx** on **AWS EC2** server and **AWS ELB** as a load balancer
 - * Designed an interactive **Unibit API** web page for over 1000 paid customers, **Accenture** and **Salesforce**, utilizing **Vue** and **Google FileBase** to store images, descriptions, titles
- **Data Terminal:** Client-side **PHP**-based platform to get more comprehensive and commercially valuable data
 - * Developed intelligent search engine using **Elastic Search** Cluster server, minimizing the time of searching finance data up to **55%**
 - * Utilized **Hibernate**, **Spring Data JPA** to provide normalization in **MySQL**, which contains more than **500K** records
 - * Used **Kubernetes** for event analysis and created **MongoDB** shared cluster for storage
 - * Researched **content-based** recommendation algorithms and combined **AI**, **prediction algorithms** to oversee the relationship between stock prices and news so that each paid customer can minimize investment risk, saving stocking cost for over **10K\$**

Huanshitong Construction Machinery Company

Software Engineer Intern

Baotou, Inner Mongolia

July 2018 - September 2018

- **E-Inventory Management System:** Java-based system to supervise commodity
 - * Built a web application on **Spring MVC** to support logistics and people management services, saving **30%** time-cost from the traditional management system and creating an extra **\$3000** profit
 - * Administrated security workflow via in-memory and **JDBC** authentication provided by **Spring Security**
 - * Employed **Spring Rest API** to handle HTTP requests, responses and **PostgreSQL** to offer a custom plugin to enhance flexibility, increasing developing efficiency up to **15%**
 - * Utilized **HBase** to provide data reading and processing, saving time for **25s**
 - * Performed load test with **JUnit** and **Mockito** to keep Spring Framework unit tests light and fast

PROJECTS

- **BootDo Background Management System:** Java-based Background Management system, including System modulo, Office modulo, blog modulo, and department modulo
 - Integrated a dashboard using **React**, **D3** and **Ant Design** to visualize the sales of iPhone product in China
 - Fetched the blog and office data from Alibaba API
 - Optimized the user experience by adding a style bar to alter the style of the website, using **jQuery**
 - Developed a **Spring Web Flow** to support item ordering
 - Instituted **Spring MVC** backend part of different modulo functions, using **SpringBoot**
 - Utilized **Mybatis** and **Hibernate** to provide better support of database operations