

Tom Cai

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SUMMARY

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

EDUCATION

- **Washington University in St.Louis** Missouri, USA
Bachelor of Science in Computer Science; GPA : 3.5 Expected Graduation : May 2021
- **Denison University** Ohio, USA
Bachelor of Art in Mathematics; GPA : 3.5 August 2016 – June 2019

SKILLS

- **Languages:** Java, HTML5/CSS3, Python, JavaScript, PHP , SQL
- **Tools:** Kubernetes, Docker, AWS, GIT, Elastic Search, Restful API, MongoDB, Redis, Google FileBase, Webpack
- **Framework:** SpingBoot/Spring MVC/Spring, Hibernate, ReactJS, Vue, jQuery, HBase

EMPLOYMENT EXPERIENCE AND RESEARCH EXPERIENCE

- **Unibit Inc: finance data company** Allston, MA
Full Stack Software Intern May 2019 - August 2019
 - **Unibit API** : developed **Java**-based platform to offer uniform and standardized financial data throughout Implemented web application based on **SpringBoot** to provide thousands of finance data. Utilized **Hibernate**, **Spring Data JPA** to provide normalization in **MySQL**, which contains more than **500K** records. 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 **AWC ELB** as load balancer.
 - **API Product documentation:** Cooperated with Product Manager to compose Unibit API documentation for over 1000 paid customers, staff from **Accenture** and **Salesforce**, saving **5%** time.
 - **Data Terminal:** User-friendly **PHP**-based platform to get more comprehensive and commercially valuable data Researched multiple recommendation algorithms and combined **machine learning**, **deep learning** to oversee the relationship between stock price and news so that each paid customer can minimize investing cost for over **10K\$**.(e.g **content-based** recommendation). Developed intelligent search engine using **Elastic Search** Cluster server, minimizing time of searching finance data up to **55%**. Used **Kubernetes** for event analysis and created **MongoDB** shared cluster for storage.
 - **Company Website:** Collaborated with UI designers and other front - end developers to build web page with user-friendly interactions and experiences, using **Vue** framework. Used **Google FileBase** to store and manage images and API documentation.
- **Huanshitong Construction Machinery Company** Baotou, Inner Mongolia
Full Stack Software Intern July 2018 - September 2018
 - **E-Inventory Management System:** Implemented Customer and Commodity Management services, saving **30 %** time-cost from traditional management system and creating extra **3000\$** profit. Administrated security workflow via in-memory and **JDBC** authentication provided by **Spring Security**. Utilized **HBase** to provide data reading and processing, saving time for **25s**.

PROJECTS EXPERIENCE

- **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 style bar to alter the style of 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.