ZHEN GUAN

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Education

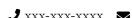**University of California, Irvine**   **September. 2018 – May 2022**
Bachelor of Science in Computer Science | GPA: 3.96/4.00   *Irvine, CA*

Work Experience

Tencent   **June 2021 – September 2021**
Software Development Engineer Intern   *Shenzhen, China*

- Implemented a full-stack feature in **React** and **Spring Boot** that enables self-service password, which allows **500+** Tencent FinTech colleagues to reset, unlock, and authenticate their **Microsoft Active Directory** account in the LDAP directory.
- Encapsulate the password policy of the LDAP directory in Tencent FinTech Permission System with **Spring Security** and **Redis**.
- Provided service to send a timed MFA verification code to Tencent Virtual Bank colleagues' OA email account for authentication with Redis and Tencent Virtual Bank message center APIs.
- Developed a **React** UserChooser component used in **20+** pages in Tencent FinTech Permission System which enables fuzzy search and autocomplete.
- Designed and implemented REST APIs in **Eggjs** with **TypeORM** to store and delete Tencent Virtual Bank deliverable in **MySQL** database.
- Developed a **Vue** component using **SheetJS** and **Ant Design** to export JSON Data into an Excel Sheet.
- Deployed a new version of projects with **CI/CD pipelines** on Tencent BlueKing DevOps Platform.

Texera   **January 2021 – Present**
Research Assistant   *Irvine, CA*

- Assisted in Texera, a system supports data analytics using GUI-based workflows.
- Built RESTful Web Services for user login system with **Angular** and **DropWizard** and utilized **JOOQ** to store username and encrypted password in MySQL database.
- Integrated **Google Sign-in** into the project and obtained **Google OAuth 2.0 credentials** to access Google APIs.

Projects

FabFlix | *Java, Vue, Element UI, AWS, Google Cloud Platform, MySQL*   **May 2021**

- Developed an online movie web application deployed on **AWS** and **Google Cloud** that allows users to search, browse, and purchase.
- Scaled out the application with **MySQL master-slave replication** and **read-write separation** and **Apache load balancer**.
- Speeded up XML parsing using **SAX Parser** and **batch insert** and inserted **10,000+** pieces of data into MySQL database in less than **2 minutes**.
- Optimized MySQL operations with **connection pooling**, **index building** and **stored procedures**.

ICS Search Engine | *Python, Flask, Vue*   **May 2021**

- Built a **web-crawler** to crawl **100,000+** unique web pages within the UCI ICS School domain.
- Tokenized user's inputs, parsed HTML for valid data, and implemented the **TF-IDF** algorithm to calculate the matching score of each query.
- Developed a web application in **Flask** and **Vue** that prompts queries and displays relevant web pages with query response time under **300ms**.

Kaggle Competition - Rainfall Prediction | *Python, Scikit-Learn*   **December 2020**

- Designed a stacked classifier model consisting of **random forest Classifier**, **neural network**, and **gradient-boosting classifiers** with Scikit-Learn.
- Predicted the presence or absence of rainfall at a particular location given **200,000 data points** and **14 features** and increased the **AUC** score of the model from 0.56 to **0.75** by optimizing parameters with **cross-validation**.

Technical Skills

Programming Languages: Python, Java, C, C++, Scala, HTML, CSS, JavaScript, SQL
Frameworks: Spring/Spring Boot, Django, Vue, Angular, React, Eggjs
Databases: MySQL, PostgreSQL, Redis, Neo4J, MongoDB, Cassandra, CouchBase Server