Cunji Song

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EDUCATION

University of California San Diego (UC San Diego)   Sep 2019-Expected Dec. 2021

M.S. in Engineering Science

Tianjin University   Sep 2015- Jul 2019

B.Eng. in Mechanical Engineering

Relevant Coursework in UC San Diego (Average GPA: 3.9): Advanced Data Structures, Algorithm Design and Analysis, Progrmng Lang:Princpl &Paradigm, Database System Applications, Princ/Computer Operating Systm, Computer Networks

TECHNICAL SKILLS

Languages: Java 8, Go, JavaScript, C, C++, HTML/CSS, SQL, MATLAB, Haskell, Node.js

Frameworks/Libraries: GQLGen (GraphQL), GORM, gRPC, Spring Boot, React, Redux, Bootstrap, MyBatis, JPA, Thymeleaf, Jquery

Others: PostgreSQL, MySQL, Heroku, Maven, Git, Docker, Linux Environment, Scrum Development

EXPERIENCE

Run The World   Tianjin, China

Backend Develop Intern   Aug. 2020 – Present

- Developed backend APIs which connect frontend and database using **GO frameworks**.
- Added new functions to internal developing tools.

Key Laboratory of Mechanism Theory and Equipment Design of Ministry of Education   Tianjin, China

Research Assistant   Dec. 2018 – Jun. 2019

- Designed and implemented the control algorithm for a teleoperated rod-driven continuum robot.
- Optimized the user interface (UI) for traditional continuum robots and achieved good master-slave following performance.

SELECTED PROJECTS

Team Tracker (A team collaboration app embedded in Wechat**)**   San Diego, CA

Tencent Hackathon: Group Leader/ Backend Developer   Aug. 2020

- Led the design and implementation of a full-stack app that helps users to create and manage their projects; significantly changed interaction mode among teammate and increased efficiency of teamwork.
- Designed and implemented RESTful API with **Spring Boot** secure it with **Spring Security** and **JWT web token**.
- Designed and developed the main page of frontend using **React**, **Redux**, **HTML**, **CSS**.
- Deployed the whole project in server using **docker.**

Online Book Store   San Diego, CA

Side Project: Backend developer   Jan. 2020 – Jun. 2020

- Constructed a full-stack online bookstore that has all e-commerce features such as register, shopping, delivery, search, login/out.
- Designed the relational database to store entity efficiently and confidentially.
- Implemented user authentication and authorization with **Spring Security** and **Spring AOP**.
- Using **MVC** architecture to separate UI coding, business logic, and data domain.

Triton Link Database (Database of a campus administration system**)**   San Diego, CA

Side Project: Independent Developer   Apr. 2020 – Jun. 2020

- Designed and Implemented the database of UC San Diego administration system which can handle extensive data maintenance and query requirements.
- Designed the E/R schema that fully covers the university work and translated it into a **3rd Normal Form relational schema**
- Built query forms and reports for queries to search information from database.
- Set constraints to the database to ban illegal queries.
- Added **materialized views** to extremely accelerate query operation.