

# JIawei SONG

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## SUMMARY OF QUALIFICATIONS

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I am currently a student at the University of Southern California, pursuing a Master's degree in Computer Science. I am passionate about web development and am looking forward to starting a career as a software engineer.

## EDUCATION

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**Master of Computer Science**, University of Southern California Aug. 2021-May 2023  
GPA : 3.96 / 4.00. Related courses: Web Technologies, Scientific Computing and Visualization

**Bachelor of Computer Science and Technology**, Soochow University Sept. 2016-June 2020  
GPA : 3.7 / 4.0. Related courses: Principles of Operating System, Computer Network, Database

## EXPERIENCE

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**Software Engineer Internship** July 2019-Aug. 2019  
Suzhou Yulong Information Technologies Co., Ltd. *Jiangsu Province, China*

- Led a team of 4 people, modified and perfected relevant features of attendance system used by 50+ staff so that administrator could edit and regulations by a Markdown editor and see work time of each staff in one table
- Wrote a demo of bulletin board system based on **Ruby on Rails**. Implemented functions such as register, log in, post, reply, edit profile and thumb up
- Got familiar with application of Ruby on Rails and Vue.js framework, gems, model-view-controller design pattern and **RESTful API**. Learned how to communicate in a team and concept of agile software development

## PROJECTS

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**Snake Battle.** Developer [Demo video](#)

- Created a platform where users can play Snake by writing algorithms to control bots and compete with others.
- Utilized **Spring Cloud** to establish matching system and bot code running as microservices.
- Designed front-end pages with **Vue.js** and other services with **Spring Boot**, deployed on **AWS**.

**An e-commerce application using microservices.** Developer

- Built a microservices architecture app with **Express, React, Docker, Kubernetes and MongoDB**.
- Implemented functions including authentication, buying, selling, and making payments with Stripe API.
- Tested isolated services with Jest and setup NATS streaming server as event bus.

**Study of Multimodality Information Fusion Technology in Crowdsourced Test Reports.** Project leader

- Completed text extraction and multimodal fusion part and improved performance by 10% compared with a single modal method. The project was awarded excellent project
- Served as **project leader**, responsible for prophase planning, mid-term defense of project, and preparation of interim and final report

**Prime Engine.** Course project [Demo video](#)

- Modified Prime Engine, a **C++** game engine, added features like frustum culling for camera, collision detection and gravity in physics system, and utilized OpenGL API to simulate wind effect
- Improved render pipeline with **D3D11** and used compute shader to create realistic water effect

## SKILLS

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**Coding Tools** C++, Java, Python, Ruby, SQL, HTML, CSS, JavaScript, TypeScript,  $\text{\LaTeX}$ , MARKDOWN  
Node.js, Spring Boot, Vue, React, Ruby on Rails, Flutter, Docker, Kubernetes, MySQL  
MongoDB, PostgreSQL, Google Cloud, Azure serverless Functions, Git