# JIAWEI SONG

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### **SUMMARY OF QUALIFICATIONS**

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**

Master of Computer Science, University of Southern California

**Expected Graduation May 2023** 

GPA: 4.0 / 4.0. Related courses: Analysis of Algorithms, 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**

### **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**

Snake Battle. Developer Demo link

- 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.is and 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**

### Coding Tools

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