

SHUO CHEN

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Education

University of Southern California

Master of Science in Computer Science, GPA: 3.8

Sep. 2020 – Dec. 2022

Los Angeles, California

University of Nottingham

BEng (Hons) in Mechanical Engineering, GPA: 3.8

Sep. 2016 – Jul. 2020

Ningbo, China & Nottingham, UK

Experience

Apple Inc.

Software Engineer Intern, HD Maps

May. 2022 – Aug. 2022

Sunnyvale, California

- Built a backend server based on the Oat++ framework (C++) in the docker which consists of multiple endpoints that can handle various user requests, interact with Apple's internal services, test the R&D algorithms and form responses in JSON format.
- Led the design and implementation of a user-friendly web application using native JavaScript and MapKit JS, to function as an internal visualization tool that is used to verify and validate algorithms and services.
- Tested and improved the performance of the web application. Performance was enhanced by 200% after topology optimization algorithms were adopted.
- Presented the project to multiple managers and other full-time employees. Clearly explained the logic of the application with an easily understandable keynote.

YBF Center

Software Engineer Intern

Jun. 2021 – Aug. 2021

Shandong, China

- Designed a WeChat mini program as an E-commerce platform for the YBF center. Scoped the project from a draft idea, developed a UI using Weixin DevTool, implemented the basic backend logic based on SpringBoot, and delivered the mini program on time.
- Tested and improved the performance of the app.

Projects

Movie Explorer A Full-Stack Web App | *Angular, Node.js, Bootstrap, Swift*

Mar. 2021 – May 2021

- Backend - A proxy server using the Express framework, which contains multiple routes that can communicate with the clients and TMDB. It is hosted on Google App Engine.
- Web App - A responsive website using Angular and Bootstrap that allows user to fetch information about movies and TV shows by making AJAX calls to the proxy server.
- iOS App - An iOS app corresponding to the web application, using SwiftUI.

Caelestis A 2D platformer game | *C#, Unity*

Aug. 2021 – Dec. 2021

- Designed a multi-level 2D platformer game that encourages players to follow the beats and take actions using Unity.
- Developed a shop interface where players can buy items with coins collected during the game.
- Designed a control system that allows the players to use various input devices (Touch Screen, Keyboard, Gamepad).

USC Registration System A Course Query System | *C++, Unix, Socket Programming*

Oct. 2022 – Nov. 2022

- Developed five communication endpoints, including client, Main server, CS server, EE server and Credential server.
- Built connections between client and servers using TCP and UDP connections. Designed data structure for communications between endpoints
- Implemented simple authentication scheme.

Technical Skills

Programming Languages: C/C++, Python, Java, JavaScript, Swift, SQL, HTML/CSS

Web Technologies: React, Angular, Express, Spring Boot, Django, MongoDB, MySQL, Apache, Oat++

Developer Tools: Linux, Shell, Git, GitHub, SpringBoot, Docker, VSCode, XCode, GCP, Azure