

Zhian Li

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EDUCATION

University of Southern California, Los Angeles, CA

Undergraduate GPA: 3.95/4.0

Viterbi School of Engineering

January 2022 – May 2023

M.S. in Computer Science (Progressive Degree Program)

Coursework: Graduate Level Computer Animation and Simulation

Viterbi School of Engineering

August 2018 – December 2022

B.S. in Computer Science

Coursework: Data Structures, Object-Oriented Design, Discrete Methods in Computer Science, Software Engineering, Algorithms, Artificial Intelligence, Machine Learning, Video Game Programming, Game Engines, Computer Graphics

Honors: Dean's List, four years in a row (2018, 2019, 2020, 2021).

WORK EXPERIENCE

Backend developer (C++)

May 2021 — August 2021

Tencent Holdings Ltd, Shenzhen

- Worked in a large group (50+ people) with strict development-testing-operation workflow, and modified the legacy back-end billing server to support signing subscription contract during payment for Tencent Cloud.
- Updated the Common Gateway Interface and Database Structure for new business requirements from Tencent's partners.
- Exercised scripting, memory management, and networking on the multicore environment of the Tencent Cloud server.

Full-stack developer (JavaScript)

September 2021 — December 2021

EthSign (Remote)

- Worked with a start-up company in developing a blockchain contract-signing platform. Implemented an asymmetrical AES encryption method that securely encrypts the contract. It binds the automatically generated password to the user's wallet address and don't require the user to store the password elsewhere off-chain .
- Adjusted the front-end layout on the contract signing page for the new encryption method using react.
- Created the backend functions for automatic email notifications when the contract is created and signed.

Backend developer (Golang)

June 2020 — August 2020

Tencent Holdings Ltd, Shenzhen

- Worked with a team of 17 engineers and programmers, developed the back-end client for the Real-Time Bidding Advertising System in Tencent Game using Go-Gin. Benefited from the concurrency pattern of Go, the system can hold up to 150,000 QPS (Queries per second).
- Built visualized graphs to monitor the statistical data of the bidding advertisement service.
- Experienced cross-department collaboration between the game department and the advertisement department.

Course Producer

January 2020 — May 2020

USC Viterbi School of Engineering

- Worked as an undergraduate teaching assistant for CSCI 170 Discrete Methods in Computer Science
- Held regular office hour sessions to help students better understand math concepts and provide hints on homework.

ACADEMIC PROJECTS

Offline Ray Tracer (C++) ([Simple Image](#))

Fall 2021

- Implemented an offline ray tracer that is able to create ray-traced image based on input files. It can accurately capture shadows and specular highlights on opaque object including spheres and triangles.
- Utilized super-sampling technique to create anti-aliasing effect on the edge. ([See This](#))
- Calculated multiple reflections rays that capture the mirroring effect on shining surfaces.

TECHNICAL SKILLS

- Programming Languages: C++ 11, Python, Golang, Java
- Tools: Git, OpenGL, MySQL, TensorFlow, Maya

ACTIVITIES

A Proud and Energetic Trumpet Player of the USC Trojan Marching Band

August 2019 - Now