Yifan (York) Liu

UCSD MSCS | Seeking 2023 software new grad positions

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website

EXPERIENCE

Roblox — *Software Engineer Intern*

JUN 2022 - SEP 2022

– Was integrated into the **Observability** team in Infra. Worked on monitoring & alerting systems that support millions of users.

– Became familiar with Grafana and VictoriaMetrics. Worked on logs, metrics (timeseries), alerts, and telemetry.

– Wrote code to automatically migrate metrics and alert configurations from a legacy system to a new system. **10000+** legacy metrics & alerts can benefit from this migration.

– Increased the number of unit tests by 73% in the telemetry repository.

– Reported regularly to mentor/manager. Delivered demos to leadership.

Washington University in St Louis — *Undergrad Researcher*

FEB 2020 - SEP 2021

– Worked under Dr. I-Ting Lee's Lab on a work-stealing scheduler called Interactive-Cilk.

– Rewrote the well-known web server NGINX using Interactive-Cilk and C++17, built containerized benchmarking software, and performanced-engineered the server.

– As a second author, submitted papers to PLDI 2021 and ASPLOS 2022.

Maximillian Studios™ — Full Stack *Game Developer*

OCT 2017 - JUL 2019

– Designed and Published a first-person shooter game Operation Scorpion on Roblox, which has accumulated **11 million visits** and thousands of Youtube Videos.

– As the only programmer in the start-up game studio, managed a codebase of 30000+ lines of game code in Lua and backend data persistence server in PostgreSQL and ExpressJS.

EDUCATION

University of California San Diego— *MS in Computer Science*

SEP 2021 - MAR or JUN 2023. GPA: 3.96

Teaching assistant of CSE 130 Programming Languages

Washington University in St Louis— *BS in Computer Science*

MAY 2021. GPA: 3.99

Outstanding Senior Award, Summa Cum Laude

Teaching assistant of CSE 361, CSE 425, CSE347

PROJECTS

Designed and implemented a Vocabulary Memorizer using HTML, CSS, javascript, Google Sheets API, and Google OAuth2.

Built a volumetric path tracer with PBR (physically based rendering) techniques

Built a **memory allocator** using segregated lists in C. Beat performance of glibc's malloc in single core.

Designed and implemented a **program synthesizer** in Rust to automatically generate programs given a SyGuS specification.

Built **an interactive command-line dictionary** with shell scripts and various open source utilities like fzf and w3m. Also wrote a small program in C to parse StarDict dictionaries.

CONTESTS

CTF - STLCyberCon
First Place (as a team), NOV 2020
A Computer Security contest

Asia-Pacific Informatics Olympiad
Bronze Medal, 2016
Highschool Competitive Programming

COURSES/SKILLS

Computer Networks & Security

Operating Systems

Parallel Computing

Functional Languages

Machine Learning, AI, Probability

Data Structures and Algorithms

Compiler, Program Synthesis

Computer Graphics

C/C++, C#, Python, Go, Lua, SQL

HTML/CSS, Javascript, Typescript