Yue Wu

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Looking for Software Engineer internship opportunities for Summer 2021.

Education

University of California, San Diego 09/2016-12/2021

- B.S. and M.S. in Computer Science **(GPA: 3.92/4)**
- Courses Taken: Data Structures, Algorithms, Software Engineering, HCI Design, Computer Graphics, Operating Systems, Programming Languages, Compilers, Deep Learning, Network, Databases

Skills

`Language`	C#, Java, Javascript/Typescript, HTML, CSS, C/C++, Python, LaTeX, Shader (GLSL/HLSL)
`Framework`	Unity, SteamVR, WPF, Android, jQuery, Node.js, SQL, OpenGL/WebGL, React.js, THREE.js
`Software`	vim, git, Linux

Work Experience

Unity Developer, UCSD Qualcomm Institute, La Jolla, California 10/2018-Present

- Built an iOS AR app for PricewaterhouseCoopers (PwC)'s Bodylogical software.
- Designed three visualization modules in Unity (ARKit) that would allow data to be presented in 3D space across different time frames, allowing the user to easily grasp the core functions of the simulator.
- Implemented an XML-based localization system and a tutorial system from scratch so that PwC can demonstrate the app to non English speakers who might be new to AR.

Intern Data Visualization Engineer, Alibaba Inc., Hangzhou, China 06/2019-08/2019

- Constructed a backend graph layout library for 3D graph visualization to replace turf.js, where I integrated force-directed layout and Sugiyama algorithm in Typescript.
- Developed a geographic model generation service featuring a Marching Square algorithm 100x more precise and more powerful than turf.js, that will be used in press conferences, including the Double 11 Festival.
- Collaborated with a naked eye 3D project team to discover data visualization and HCI in Unity/WebGL, where I explored Entitas, a data-oriented framework similar to Redux, and wrote shaders for various effects.

Intern Full Stack Developer, LMT Technology, Shanghai, China 06/2018-08/2018

- Refactored company's product from Flash to HTML/Javascript, and from a custom backend to Spring, reducing code length and boosting execution efficiency.
- Pinpointed and addressed localization and responsive UI issues, making the product foreigner-friendly and improving user experience.
- Introduced JSDoc, a documentation format for Javascript, to the team, setting up a uniform code format.

Selected Projects

Exteractive, Full Stack Developer 07/2020-Present

- An interactive story web app, with React as front end and Express as back end.
- Implemented a user system with Postgresql where users can write stories, continue others' stories and rate their writing.
- Achieved responsive UI through React and Emotion, a CSS-in-JS framework.

MechSuit VR, Unity Developer 04/2017-06/2019

- Joined the school's Virtual Reality Club to work on a Unity fighting game featuring Steam VR (Vive).
- Implemented the inverse kinematic system for the armor using the positions of the VR headset and hand-held controllers, which boosted player control efficiency.
- Programmed a propulsion system with player movements as input, enabling motion control for players, who would physically move to traverse through the arena instead of using the joystick.
- Designed health and weapon systems, and UI for health and ammo display using MVC, writing scripts with Strategy Pattern so that they can be easily extended for various damage types and player resistances.

Transracer, Full Stack Developer 04/2018-06/2018

- Worked in a 4-person team to create a web application with both front end (Bootstrap) and back end (Node.js) that allows user to learn different languages through translating lyrics.
- Developed all the database logic with sqlite for songs and scores, so that users can upload their favorite songs to the app for practice, and view their past attempts.
- Improved score calculation based on the number of hints the user relies on and the correctness of the answer.