

XXXXXXXXXXXX

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<https://github.com/XXXXXXXXXXXX>

EDUCATION

University of California, San Diego

09/2016-06/2020

- B.S. in Computer Science, Minor in Visual Arts: Computing and Arts (**GPA: 3.91/4**)
- Courses Taken: Data Structures, Algorithms, Software Engineering, HCI Design, Computer Graphics, Operating Systems, Programming Languages (Functional Programming)

SKILLS

Language C#, Java, Javascript/Typescript, C, C++, Python, Haskell, \LaTeX , Shader (GLSL, HLSL/ShaderLab)
Framework Unity, SteamVR, WPF, Android, jQuery, Node.js, SQL, OpenGL/WebGL, React.js, THREE.js
Software Visual Studio, Android Studio, vim, Blender, git, Linux

WORK EXPERIENCE

Intern Data Visualization Engineer, XXXXXXXXXXXX, Hangzhou, China

06/2019-08/2019

- Constructed a backend graph layout library for 3D graph visualization using Typescript. Integrating force-directed layout and Sugiyama algorithm, the library is more flexible than d3.js.
- Developed a geographic model generation service that will be used in presentations, including the XXXXXXXXXXXX. Implemented Marching Square algorithm from scratch that is 100x more precise and more powerful than turf.js.
- Collaborated with a naked eye 3D project team to discover data visualization and HCI in Unity/WebGL. Explored Entitas, a data-oriented framework similar to Redux and wrote shaders for various effects.

Unity Developer, UCSD XXXXXXXXXXXX, La Jolla, California

10/2018-06/2019

- Developed an iOS AR app for XXXXXX company's software under the guidance of Prof. XXXXXXXXXXXX. Expected to be shipped in 09/2019, XXXXXXXXXXXX would demonstrate the use cases of XXXXXXXXXXXX.
- Designed three different 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 of the core functions of XXXXXXXXXXXX.
- Implemented an XML-based localization system and a tutorial system from scratch so that XXXXXX can demonstrate the app to non English speakers who might be new to AR.

Intern Full Stack Developer, XXXXXXXXXXXX, Shanghai, China

06/2018-08/2018

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

SELECTED PROJECTS

Mechsuit VR, Unity Developer

04/2017-06/2019

- Collaborated with members from the school's Virtual Reality Club on a Unity game featuring Steam VR (Vive). Players would wear mechanic armors and fight in an arena.
- Implemented the inverse kinematic system for the armor using the positions of the VR headset and hand-held controllers. The suit's arm would match the player's arm movements, enabling efficient control of the armor.
- 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. Wrote 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). The app 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.

Flashback Music, Android Developer

01/2018-03/2018

- Worked in a 5-person, Agile team to create an Android application. This music app records the time and location songs are played so that users could reminisce on their moods.
- Separated UI interaction and back end logic with Model-View-Controller pattern resulting in cleaner code.
- Devised separate logic for local and cloud music under a set of interfaces with Strategy and Factory patterns.