

# Renxu Hu

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*Seeking an Intern Opportunity for Software Engineer to Learn how to  
Operate Software Platforms Effectively*

## Work Experience

- July 2016 – **Tutor and Instructional Assistant, UCSD CSE Department, La Jolla, CA.**  
Present
  - Tutor for OOP, data structure, and OOD; instructional assistant for 3D computer graphics and real-time applications using modern OpenGL
  - Analyzed and debugged students' code, and explained concepts in C, C++, Java, and OpenGL
- April 2015 – **Web Developer Intern, Beijing China IP LLP., Beijing, China.**  
July 2015
  - Developed a dynamic and interactive website that enabled high traffic and better User Experience
  - Implemented Progressive Web App(PWA) through web application manifest and service worker, which allows better performance to fulfill the RAIL Model(Response, Animation, Idle, Load) provided by Google
  - Integrated a server that expedited search functionality by providing organized database and better search algorithm
  - Languages&Frameworks used: JavaScript, HTML, CSS, Node.js, PHP, mySQL, AJAX, JSON

## Education

June 2019 **Bachelor of Science, Computer Engineering, UC San Diego, Provost's Honors, Major GPA – 3.8.**

## Projects

- August 2017 – **Dope, Soundboard Web Application.**  
September 2017
  - A soundboard web application that stores music to the personal customized playlist for people to store and play music online
  - Implemented cache implementation to improve the performance, and used user authentication and authorization, input sanitization, and PHP hardening session to improve the security of the website
  - Integrated a server that expedited sort functionality for music and playlists by providing an organized database and efficient search algorithms
  - Languages&Frameworks used: JavaScript, HTML, CSS, Node.js, PHP, MySQL, AJAX, Soundcloud API
- January 2017 **WOOF!, iOS Appliction.**  
– March 2017
  - An iOS pet management and identification application that enables users to manage pets through daily journals and provides tips and recommendations for raising a pet
  - Integrated Google Maps API, Google Sign-in API, Cloud Messaging API, and Notification System into backend
  - Languages&Frameworks used: Swift, iOS, Google Maps API, Google Sign-In, Cloud Messaging, and Firebase
- October 2017 **Lowpoly Zen Island, OpenGL 3D Animation Application.**  
– December 2017
  - A 3D animation app that creates a floating island with animated low-poly lake surrounded by low-poly mountain.
  - Integrated dynamic low-poly water and terrain effect with real-time reflection and refraction, snow particle effect with wind speed&direction control, and depth of field effect with adjustable focus length and aperture.
  - Languages&Frameworks used: C++, OpenGL, irrKlang(sound engine), Blender
- LA Hacks 2017 **Hyperlink, Python Text-To-Video Reading Assistant.**
  - A Python program that serves as a reading assistant which transfers text to video to provide interactive and adaptive reading method that helps people reading
  - Integrated Azure cognitive services to provide audios and pictures to supply better memorization and understanding on reading
  - Languages&Frameworks used: Python, JavaScript, HTML, CSS, JQuery, Azure cognitive services, TensorFlow.

## Languages & Frameworks

**Languages**      **Proficient:**    C\C++\C#, JavaScript, HTML+CSS, PHP, React.js, Redux.js, Swift  
                         **Intermediate:**    Java, Python, SystemVerilog, Android

**Frameworks**    SQL, Ajax, JQuery, Node.js, Unity, OpenGL, TensorFlow, Firebase, Unix, L<sup>A</sup>T<sub>E</sub>X