

Tianren(Silver) Zhang

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Education

University of California, Irvine

B.S • COMPUTER ENGINEERING • GRADUATION DATE: JUNE 2019 • GPA=3.2

Programming Skills

Language: Java, C++, Python, C, GO, SQL, Javascript, Javascript, PHP, System Verilog;

Used Frameworks/Libraries: Django, Spring MVC, OpenCV, Tensorflow, Numpy, Pytorch, Pandas, SciPy.

Experience

- ❖ **Software Engineering Intern. Shanghai Qiadao Internet Inc.** February - June 2015
 - Participated in **Android development** of a question-answer app on which users can ask, answer questions and reward the most satisfying answers with some bounty;
 - Built up **data transfer and processing** on client, implemented **async loading, voice-to-text processing**;
 - The app ended up reaching over 20,000 users and about 2,000 daily active users on average for Android and IOS;

Independent Projects

- ❖ **Dataset Processing: Silverset [PIL, Numpy, Keras, Urllib]** May 2018 - Now
 - Made python library for Machine Learning learners to easily get the most common image datasets with only two lines to download and process the datasets or just turn the datasets into numpy arrays;
 - Integrated seven most popular datasets including cifar, Caltech, Pascal etc, it still keeps extending so far;
 - Used python scratch tools and image processing libraries to fetch and analyze all the image datasets.
- ❖ **IoT: Smart Mirror [Raspberry Pi, Alexa, Google Voice, Sensors]** May 2018 - June 2018
 - Made a smart mirror with **Raspberry Pi** which is able to keep detecting light, motion and temperature around;
 - Implemented **voice interaction** that allows users to switch mirror's mode with voice and talk to **Alexa API**, enabled the program to automatically send alert emails to the owner when detecting exceptions;
 - Implemented **multithreading** so that while the program is updating the interface, it keeps reading data from sensors through GPIOs and listening user's voice command to make operations.
- ❖ **Game Development: Bipi Ball Game [UE4, C++]** June 2016 - October 2016
 - Used **Unreal Game Engine** to develop a 3D mobile game in which the gravity sensor is exploited to control the movements of the character, implemented game logic with **C++**;
 - Developed AI characters in the game that could find their own paths to help or attack the player;
 - Participated in designing mechanisms and drawing models of all the 36 levels in the games.
- ❖ **Full Stack Web Development: Note-Sharing Platform[Django, Mysql, Ajax]** March 2016 - June 2016
 - Developed a Mobile app and Website where students can get bounty by sharing their class notes;
 - Used **AWS EC2** with **Ubuntu** system, built up the backend with **Django framework**, used **Mysql** to store and organize user data;
 - Developed Android client and finished website frontend which covers **keyword synchronous searching, multiple files transfer** with **Javascript, JQuery and Ajax**;

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Github: <https://github.com/tianrenz2>