Frank Wan

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Education

University of California, San Diego June 2020

- Bachelor of Science in Machine Learning
- Computer Science Minor
- Relevant coursework: Neural Networks/Deep Learning, Modeling & Data Analysis, Object-Oriented Design, Computer Graphics, Systems Programming, Advanced Data Structures, Software Engineering, Computer Operating Systems

Skills

Programming Languages: Java, C#, Python, C++, C, JavaScript, HTML, SQL **Libraries:** NumPy, SciPy, PyTorch, TensorFlow
Environments: Linux, Bash, Windows, Powershell, Android **Language:** English (Native), Chinese (Proficient)

Professional Experience

Tencent/Riot Games **Los Angeles, California**
Software Engineering Intern June - December 2018
World's largest gaming company and large technology and social media company. In collaboration with Riot Games, the developer of League of Legends.

- Designed and built prototypes for mobile games in Unity that were later pitched to the development team.
- Implemented feature improvements, documented playtesting feedback, and provided technical translations at Riot Games for the mobile port of League of Legends.

Highguard Networks Inc. **Suzhou, China**
Software Engineering Intern June - September 2017
Software company focusing on the research and development of network security solutions.

- Implemented an encryption engine in OpenSSL, built on SM2 encryption. As opposed to the commonly used RSA encryption, SM2 encryption leverages elliptic curve cryptography to cut memory usage by a third without sacrificing security.
- Built custom versions of Firefox and Chrome to create platforms to test these encryption engines.
- Documented build and encryption process for future employees to follow.

Autodesk **Shanghai, China**
Software Engineering Intern June - September 2016
Multinational software corporation leading in software development for architecture, engineering, manufacturing, and media industries.

- Ported a web app to a native virtual reality app using Unreal Engine 4, where the user can explore and place furniture in a virtually simulated house, which helps the user visualize how items look while designing their own house.
- Leveraged XML, JavaScript, and a WebVR framework to add Samsung Gear VR functionality to the existing web app, which allowed the user to view furniture models on their phone. Finished product was shown in a tech demo to hundreds of business partners and consumers.

Carrier IQ **Westborough, Massachusetts**
Software Engineering Intern June - September 2014, June - September 2015
Mobile software company selling diagnostic analysis of smartphones to wireless industries.

- Built key business metrics dashboards using Oracle SQL and Tableau to improve internal tools, boosting employee productivity and assisting with data analysis.
- Improved both the front-end Javascript and back-end Java of CarrierIQ's data analysis website.

Projects

Snake AI: Evolutionary machine learning model that learns how to play the classic game of Snake, built in Python using Pygame
What Are You Eating: Machine learning model that classifies fruit images by fruit type built in Python Jupyter Notebook .
Pathfinding Algorithm Visualizer: 3D visualizer built in Unity that performs various pathfinding algorithms on randomly generated mazes or custom drawn maps.
Rotato Potato: 2D puzzle platformer built using PixiJS, where the player utilizes the ability to rotate areas of the screen to solve puzzles.