Will Xu

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Education:

University of California, San Diego, La Jolla, CA — *B.S. Computer Science*
September 2016 - June 2020

Experience:

Microsoft, Software Engineering Intern — *Cambridge, MA*
June 2019 - now

- Changed absolute timestamps to friendly timestamps in comments on Office for web, iOS, Android, and Win32 using TypeScript/React/Redux build on top of a C# application
- Designed a detailed spec, complete with design requirements and metrics to measure success

Nuro, Software Engineering Intern — *Mountain View, CA*
June 2018 - September 2018

- Developed a module in a Publish-Subscribe framework that ensures the quality of sensor data
- Created a packet multiplexer to categorize high quantities of incoming real-time data
- Projected map features onto camera frames in real-time using C++ OpenCV and OpenGL renderables

Velodyne LiDAR, Engineering Intern — *San Jose, CA*
June 2016 - September 2016, June 2017 - September 2017

- Coded several Python and Matlab scripts to ensure proper functionality of LiDAR sensors
- Upgraded the sensor's web interface with a new 'Manual Mode' feature

Projects:

Ray Tracer
February 2019 - March 2019

- Used C++ (with GLM) and OpenGL to create a ray tracer from scratch for what is considered the hardest project of any class in the undergraduate computer science department
- Rendered realistic images by incorporating recursive reflections, point and directional lighting, and shadows

RC Self Driving Car
April 2018 - June 2018

- Constructed and trained a self-driving RC car using an open-source library on a Raspberry Pi
- Performed off-board model training on UCSD's supercomputer center's GPU cluster
- Injected code into the donkey framework interfacing an open-source, voice-recognition API (SoPaRe) and onboard Raspberry Pi to allow for voice control of the vehicle

WaveRider - Mobile Rideshare Application for UCSD Students
September 2018 - December 2018

- Built REST APIs using NodeJS and Express to handle a variety of driver and rider use cases
- Developed the interface using ReactNative to expedite development without compromising quality

Skills:

- C++, Python, OpenCV, OpenGL, Java, JavaScript, HTML, CSS, Svelte3, React, Django