Will Xu

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Education:

University of California, San Diego, La Jolla, CA — *Computer Engineering*
Upper-Division Major GPA: 4.0
September 2016 - June 2020

Experience:

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

- Collaborated in a burgeoning, minimally-hierarchical startup with world-class engineers
- Discussed progress and goals in a weekly meeting with the CEO and a small, but vital team
- Developed a module in a Publish-Subscribe framework that ensures the quality of sensor data
- Built dynamic OpenGL renderables, a packet multiplexer, and C++ plugins for an undisclosed project
- Refactored pre-existing code by exposing functionality, enabling its use in other classes
- Established and solidified smart coding practices and professional, cooperative habits

Velodyne LiDAR, San Jose, CA — *Engineering Intern*
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
- Fabricated and coded an Arduino-based tachometer to precisely measure the RPM of a sensor
- Updated a test script to control a ThorLabs motor, building an interface for the script and DLL

Projects:

ECE 148 - Intro to Self-Driving Cars
April 2018 - June 2018

- Constructed and trained, in a collaborative setting, a self-driving RC car running the open-source donkey framework on a Raspberry Pi 3
- 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
- Presented detailed updates of project progress, releasing Gantt charts used to increase productivity

HQ Trivia Video Analysis Script
April 2018 - May 2018

- Programmed a Jupyter notebook to use screen-capture OCR to detect and categorize text from a pre-recorded HQ trivia video
- Employed BeautifulSoup to scrape Google search metadata and predict the answer in the same script

Alpha Phi Omega Webmaster Committee Member
December 2016 - June 2017

- Employed Ruby on Rails to add a calendar and other upgrades to the official website
- Prototyped potential website redesigns for future implementation

IEEE Quarterly Project - Web-based Motion Sensor
September 2016 - December 2016

- Designed, programmed, and built a device to fit a data-driven web design theme as group leader
- Developed a website running on the raspberry Pi using the MEAN stack

Skills:

- Python (proficient), Java (proficient), C (proficient), C++ (proficient), HTML (beginner), CSS (beginner), Angular.js (beginner), Ruby on Rails (beginner), Matlab (beginner)
- Arduino and rPi programming, Solidworks, Autodesk
- English and Chinese (Mandarin and Shanghai dialect)