Xuezhen (Franklin) Wang

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Education:

UCLA (2016-2020) - 2nd Year Electrical Engineering Major, 3.96 GPA

Relevant Coursework:

- Calculus I, II, and III; Linear Algebra; Differential Equations (Current)
- Physics - Mechanics, Electricity and Magnetism, Optics, Special Relativity
- Introduction to Computer Science C++ I and II - Data Structures; Software Construction Laboratory (Current)
- Introduction to Electrical Engineering (Current), Logic Design of Digital Systems (Current), Systems and Signals (Current)

Los Gatos High School (2012-2016): 4.71 weighted and 4.0 unweighted GPA, Salutatorian in class of 419 students, 2310 SAT

Experience:

Research Internship at Stanford Department of Geology (2015)

-Assisted with department's current research on body size evolution
-Performed data mining with R on database of biological information
-Wrote research paper that was submitted to Siemens competition

Freelance tutor (2015-2016)

-Tutor high school students in primarily Geometry, Algebra 1, Physics, ACT, and SAT

Stanford Linear Accelerator Technology and Innovation Directorate Internship (Summer 2017)

-Used DXDesigner to make hierarchical schematics of PCBs for particle accelerators;
-Designed subcircuits for signal transmission, power distribution, FPGAs, and connector systems for charged particle sensors and photon sensors

Research Assistant - Biophotonics, Computer Vision, Image Processing Lab (September 2017- Present)

-Currently learning CAD through Autodesk Inventor to help create mechanical parts for imaging device; 3D printed mechanical lens and image holder
-Currently learning MatLab, ImageJ, and MeshLab for image processing; created MatLab scripts for reconstructing 3D point clouds from grayscale images; used reconstruction methods in Meshlab to create 3D printable files

Projects:

Java Application Project

-Worked in team of 4 to create the iOS game 2048 and coded game logic

Renewable Energy Windmill Project

-Worked with 3D Printing Club to design 3D printed windmill that can charge phone
-Researched and built power generation electrical system and charging system

Bruin Spacecraft Group: Payload Electronics System

-Designed PCB using CircuitMaker for sensing and data acquisition system for rocket payload; designed subcircuits for sensors and regulators; researched necessary power components; designed and hand-routed four layer power board

IEEE OPS - Introduction to Electrical Engineering project-based program

-Learned and made mini-projects with basic electronics, circuit debugging, soldering, and Arduino microcontrollers; used Eagle to fabricate PCB.
-Built mini-car that could navigate through corridors, stay in centered line, and turn. Used self-made distance sensing system and Arduino to control the navigation using PID

Skills:

Java, R, C++, Unix/Linux, MATLAB
Microsoft Word, Excel, Powerpoint

Awards:
National Merit Finalist, National AP Scholar
Los Gatos High School Math Department Award, District Scholar of Distinction
UCLA Dean's Honor List