Jiating(Terry) Lu

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EDUCATION

University of Southern California, Los Angeles, CA — Aug 2019-Dec 2022
Bachelor of Science in Computer Science, GPA: *3.695*

Friends Seminary, New York, NY — Aug 2015-May 2019
High School Diploma, GPA: *N/A* (Reason: Quaker School)

SKILLS

Coding Languages: C/C++, Python, Linux Bash, Visual Basic in Excel, Java, Node.js, MySQL, Pascal
Tools: Linux Terminal, Git, Node-Red, Arduino, Fusion 360, Vultr, Simplify3D, NVIDIA Jetson Nano
Machinery: 3D Printer, SLA Printer, Laser Cutter, CNC Machines
Language: Fluent in English, Mandarin; limited in Spanish

EXPERIENCE

USC Cubesat Project Magneto & Lajument, Ground Station Software Support — Aug 2019-Present

- Collaborate with a team of 20 in building 2 CubeSat satellites to be launched. (Magneto & LaJument)
- Design database and backend server for parsing and managing satellite data with Python and node-RED.
- Learn and manage execution of satellite signal processing with GNURadio on Linux & Windows.
- Maintain professional documentation on programs and meet weekly to discuss design choices.

PROJECTS

Linux Robotics & Embedded Systems — Nov 2018-Present

- Created a **Linux-based Spider Robot(Spooder)** in Python with Beaglebone, daisy-chained smart servos, PDB circuits optimized for robust power output, and OpenCV for optical character recognition.
- Collaborated on making a WiFi-based iOS app for robot control and UDP live streaming.

Arduino Robots & Personal Engineering Log Website — Nov 2016-Present

- Developed an **8-legged Bionic Spider Robot(Spidy)** in C++ with Arduino and other prototype robots.
- Created custom robot software framework and a dynamically-stable legged locomotion algorithm.
- Designed a user-friendly interface for radio controllers and an iOS Bluetooth Control App with a friend.

DIY Circuit Projects & Designs — Nov 2016-May 2019

- DIYed an Arduino-controlled Heatbed for an outdated 3D printer and solved warping issues.
- Prototyped signal processing circuits/devices, such as Bluetooth-Radio Converter, audio jack reader.

LEADERSHIP

Makers at USC, *Project Manager* — Aug 2019-Present

- Managed development of miniature semi-autonomous Spider Robots to assist in disaster situations.
- Designed 24-pin PWM Shield for Arduino Nano for low-latency motion control in robots.
- Led integration of Nvidia Jetson and existing Linux board of Spooder for future OpenCV applications.

TechX 2019 Hackathon, ***Team Leader*** — July 2019

- Led a team of 4 to design and commercialize DIY educational kits of Stepper Motor for students.

UCLA IDEA Hacks, *Team Leader* *of SleepTrack* — Dec 2019

- Created a gesture-controlled Sleep Tracker and an algorithm for determining sleep quality.

TechX 2020 Academy, ***Teaching Assistant Leader*** *of Industrial Design Course* — August 2020

- Supervised a class of 30 high school students on a college-level Industrial Design course.
- Engaged with students on topics of IoT product designs, such as user experience and feasibility.
- Organized a 24-hour makerthon and guided participants with 3D printers and laser cutters.