Dacheng Li

https://www.linkedin.com/in/dacheng-li
(352) 316-0034 | dacheng.li3@gmail.com

Education

- University of California, Los Angeles; Los Angeles, California
    - Physics with Statistics minor, anticipated Bachelor of Sciences, 2021

Skills

- Coding background- Python, C/C++, Bash, VBA, Mathematica, ROS
- Design- Solidworks 2019, AutoCAD Inventor
- 3D printing and basic manufacturing
- Assembly, Integration, and Test
- Computer vision data integration
- IoT/Radio sensor networks
- Prototyping
- GNURadio
- CubeSat RF Engineering
- 4nec2
- HAM system design
- Agile and Waterfall development

Major Activity Background and Work Experience

Bently Nevada
Intern, Systems engineering Team; June 2019-Sept. 2019

- Worked on development of Orbit 60, Torque, and Ranger Pro condition monitoring platforms
- Formulated functional architecture flowdowns and managed requirements with systems engineering team
- Developed VBA tools to grade existing requirements for testability

UCLA Smart Grid Energy Research Center (SMERC)
Student Researcher; February 2019-Present

- Researched knowledge transfer system for testing of Machine Learning-driven smart insurance adjustment
- Developed prototype electric vehicle charger in compliance with ISO 15118 standards
- Designed delivery drone with ROS and Solidworks tools to support lab objectives
- Used PyTorch and OpenCV to design autonomous driving framework

UCLA EPSS
Student Researcher; November 2019- Present

- Developed radiometric temperature sensors with USRP/SDR technology and GNURadio
- Modeled Martian surface to predict RIMFAX data prior to deployment

Bruin Spacecraft Group
Lead Communications Engineer, RAPID- URSa mission; June 2019-Present

- Led planning and development of space and ground-based S-band cubesat communications system
- Secured data transmissions in conjunction with Command and Data Handling team

Project Manager, Overseer; June 2018- Present

- Assisted development of hardware systems for high altitude ballooning operations using CAD tools, Raspberry Pi, and rapid prototyping technologies
- Taught Solidworks, machining, and systems engineering skills to inexperienced members
- Improved design for over 500% additional payload mass and 200% additional flight duration from previous launches
- Led high-level systems management in accordance with technical specifications
- Met with subsystem leadership to plan future development goals

Independent Project development

- Developed LoRa sensor network from OTS components
- Used Raspberry Pi, Arduino, and networking tools to develop IoT network
- Integrated custom power system into design to ensure off-the-grid operability
- Performed cost-benefit analysis to minimize design cost