Aram Dergevorkian

1307 Imperial Dr. Glendale, CA 91207 - aram@aramd.net - (818) 934-5571 - aramd.net

Education

California State Polytechnic University, Pomona — **GPA: 3.5**
B.S. Electrical Engineering — Expected May 2021
Dean's List — *5 Terms*
President's List — *1 Term*

Experience

Jet Propulsion Laboratory (Summer 2016 - Present)
Intern - Microwave Remote Sensing Instruments Group
March 2019 - Present - Developed instrument electronics for PREFIRE (Polar Radiant Energy in the Far-InfraRed Experiment) CubeSat. Work involved both software and PCB design/layout for instrument PCBAs, harnessing, and designing/building test hardware.
Summer 2018 - Reimplemented instrument controller on Artix-7 FPGA with an embedded MicroBlaze softcore processor. Development aimed at use in PREFIRE, MIRCATs, EonIR, and TEMPEST-D derivative CubeSat missions.
Summer 2017 - Implemented real-time instrument controller for precision motor control and housekeeping tasks aimed at CubeSat and SmallSat applications. Responsible for both software development and PCB design/layout.
Summer 2016 - Investigated the usefulness of Synopsys' Synphony Model Compiler (SMC) for use in radio science applications. Recreated key elements from the CASPER toolset missing in SMC to demonstrate the capabilities of SMC for creating radiometers.

UCLA ELFIN CubeSat Project (Summer 2015 - Spring 2016)
Intern - Communications Subsystem
Tested the spacecraft's AstroDev He-100 prototype, and He-82 flight radios. Designed and manufactured several PCBs and adapters for the interface and testing of radio equipment. Assisted the earth station team in building and setting up communications equipment.

Artistic Entertainment Services (January 2017 - October 2018)
Electrical Engineer
Responsible for the production of TwinkleWorks LED fixtures and LED controllers. Developed new series of RGBW LED fixtures and laid the foundation for future RGBW LED controllers.

La Cañada Flintridge Tournament of Roses Association (Summer 2011 - Spring 2019)
Construction Team, Board of Directors
Responsibilities varied from electronics to hydraulic/mechanical construction. Specific projects include building a data logger for the float's hydrostatic drive system, and redesign of the float's intercom to integrate wireless communication and remote control capabilities. Was solely responsible for complete redesign and assembly of a new hydraulic and pneumatic animation system.

Projects

Built a variety of radio related electronics, including microphones, bluetooth and android phone radio interfaces, amplifiers, antennas. Built computer-independant processor for quadrature DSP to be used with a SoftRock SDR kit as well as a custom modular SDR receiver. Designed and built vehicle accessory control interfaces with CAN bus integration.

Programming Verilog, C/C++ (ARM, AVR, PIC), XC (XMOS), Assembly (6502, PIC), Python, Java

Software Altium, Vivado, iCEcube2, uVision, MPLAB, xTIMEcomposer, MATLAB, VS Code, Arduino