

Jesse A. Wigfield

1584 Loranne Ave, Pomona, CA 91767

jawigfield@cpp.edu

(760) 793-9072

EDUCATION	California Sate Polytechnic University , Pomona, CA. B.S. in Electrical Engineering	Graduating: December 10, 2016 Overall GPA: 3.55/4.0 Core GPA: 3.94/4.0
TECHNICAL SKILLS	Software: C++, MATLAB, Python, Verilog, VHDL, P-Spice, SQL, SVN, Git, LabVIEW Operating Systems: Windows, Linux, Mac OSX Hardware: PCB Design, Microcontrollers, FPGA, DC & Stepper Motors, Oscilloscopes, Soldering	
PROFESSIONAL EXPERIENCE	NASA Jet Propulsion Laboratory , Pasadena, CA. <i>Simulation and Support Equipment Division - Intern</i> June 2016 – Present <ul style="list-style-type: none">Working with experienced engineers, learning the fundamentals of spacecraft simulation & testingStudying aerospace standards, such as MIL-STD-1553, SpaceWire, and cPCIDelivering prototype support equipment and design reports for Insight and M2020Collaborating with engineers and customers to overcome objective changes during developmentAssisting regression tests of the M2020 Non-Volatile Memory card via cPCI bus Campfire Alaska , Anchorage, AK. June 2015 - Aug. 2015 <ul style="list-style-type: none">Led a team of three youth counselors to remote Alaskan communities & hosted summer camps China Lake Child and Youth Programs , Ridgecrest, CA. May 2009 - Sep. 2014 <ul style="list-style-type: none">Directed 10+ staff daily & created 3 new programs: Fix-It Club, Rock Wall Club, Paintball Club	
PROJECTS	NASA - Electronic Support Equipment for M2020 motors Aug 2016 - Oct. 2016 <ul style="list-style-type: none">Engineered hardware and user interfaces to control and protect flight hardware during testingDrew PCB designs and schematics for review and assembly of equipmentCompleted a design that passes Failure Modes & Effects Analysis (FMEA) NASA - Spacecraft Simulation Auto-Coder May 2016 - Aug. 2016 <ul style="list-style-type: none">Developed Python algorithms to query SysML spacecraft models for specific componentsEstablished an SQL database of custom components including a user interfaceAuto-coded simulation initialization with matched components and their interconnections IEEE - Micromouse Autonomous Maze Solving Robot Sep. 2105 - May 2016 <ul style="list-style-type: none">Designed and tuned a PID control algorithm using C++, DC motors, and an Atmel microcontrollerTaught embedded programming in C++ to new members of IEEE Senior Capstone - RF Range Finding Sep. 2105 - May 2016 <ul style="list-style-type: none">Implemented Silicone Instruments RF transmitters and receivers to determine distancesUtilized PIC microcontrollers, oscilloscopes, spectrum analyzers, and band pass filters FPGA - VHDL Trigonometric Calculator Feb 2016 - Apr. 2016 <ul style="list-style-type: none">Designed a sine/cosine calculator using the CORDIC algorithm on a Spartan 3 FPGAAccomplished multiplication and division with structural arrays of adders MATLAB - Artificial Intelligence Methods R&D Sep 2015 - Dec 2015 <ul style="list-style-type: none">Used MATLAB to study the effectiveness and utilization of the A* graph traversal algorithmCompleted an algorithm that can solve mazes and illustrate the fastest possible solution	
PERSONAL ACHIEVEMENTS	Boy Scouts of America - Eagle Scout Feb. 2002 - Jan. 2009 <ul style="list-style-type: none">Orchestrated troop meetings, camp-outs, hikes, and community service events for troop 848	