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Ian M. Donovan

Objective:	Seeking a full-time firmware or embedded systems engineering position where my previous experiences can be utilized while also forging new skills.
Skills:	• Experienced coding microcontrollers (ARM Cortex M, MSP430, Arduino, AVR) • Flexible programmer (C++, Java, MATLAB, Perl, Fortran, others) • Inventive problem solver (big picture thinker) • Adept at explaining complex concepts in simpler terms • Computational numerical methods and analysis of large data sets

Experience:	**Student Researcher** 2014- 2017 Intelligent Computing and Embedded Systems Laboratory, San Francisco State University, San Francisco, California • Research in Electromyography (EMG) based Gesture Recognition for Prosthetics • **Authored and presented three published journal papers in IEEE's EMBC** • Developed multiple innovative feature extraction methods that have been shown to increase gesture prediction accuracies while decreasing computational requirements. • Data collection from subjects with commercial and clinical EMG systems • Programmed front end feature extraction and Bluetooth transmitter on a TI MSP430
	Graduate Student Mentor 2015, 2016 Cañada College and SFSU Cooperative Internship Program, San Francisco, California • Managed student interns developing Human Machine Interfaces based on EMG • Programming, GUI, Machine Learning, Real-time Analysis • **Both mentored teams won in competition against other student projects**
	Self Employed 2012- 2014 • Installed and programmed building and home automation systems • IT and networking support for small offices and homes
	Aerospace Engineer II 2003- 2012 Advatech Pacific Inc. , Redlands, California • Computational Fluid Dynamic Analyst (rocket cooling, hyper-sonics) • Automation scripts to integrate CFD in multidisciplinary analyses tools • Communicated directly with customers and delivered technical presentations

Education:	**San Francisco State University, California** 2014-2017 **M/S in Engineering: Embedded Electrical and Computer Systems** • Received Distinguished Achievement Award for Academic Excellence • Thesis in Innovative methods for High Density EMG Feature Extraction • Courses in Robotics, Advance Controls, Embedded Systems, Machine Learning • Built and programmed small balancing robot with Bluetooth control and monitoring
	San Jose State University, California 2007- 2009 **Non-Degree Course Work in Electrical Engineering** • Graduate courses: Mechatronics, Power electronics, Linear System Theory, and Satellite Dynamics and Controls • Work on CubeSat solar power systems including max power point tracking.
	Cal Poly Pomona, California 1999- 2004 **B/S in Engineering with a major in Aerospace Engineering** • Courses in: CFD, Rockets, Composites, and Finite Elements. • Officer of AIAA and Rocketry club

Reference and Publishes List available upon request and on LinkedIn