

Victoria Moran

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EDUCATION

Harvey Mudd College – Claremont, CA Expected May 2020
Bachelor of Science in Engineering GPA: 3.81/4.00
Tau Beta Pi, Dean's List (all semesters) Major GPA: 3.89/4.00
Electrical Engineering Coursework – Microprocessor Systems | Digital Electronics and Computer Engineering |
Electronic and Magnetic Devices and Circuits | Experimental Engineering | Power Electronics | Control Systems
Other Related Coursework – Advanced Systems Engineering | Intro to Engineering Design and Manufacturing |
Data Structures and Program Development | Electromagnetic Theory and Optics | Multivariable Calculus

SKILLS

EE Circuit Design | PCB Layout (Altium) and Verification | Embedded Systems | FPGA | Raspberry Pi
Programming Matlab | C++ | C | SystemVerilog | Java | Python | Linux | Git | R | Arduino | Verilog-A | HSPICE
Languages English | Mandarin (Intermediate) | Spanish (Beginner)
Other CAD (SolidWorks) | Machining | Modeling | Rapid Prototyping | Innovation (patent pending) |
Microsoft Office | Technical Writing | New Product Development | Lab Equipment

INDUSTRY EXPERIENCE

Square | Electrical Engineering Intern June - August 2019
♦ Performed system validation on a secure payments board to ensure functionality and signal integrity
♦ Designed a breakout board for internal debugging through schematic capture and PCB layout of debug interfaces
♦ Investigated changes to system behavior from using a new connector and modified schematics accordingly
HP Inc. | R&D Systems Engineer Intern May - August 2018
♦ Developed a new technology to reduce the time of curing various inks from 3 minutes to < 1 second
♦ Collaborated with an international team to meet product development timelines and protect intellectual property
Energize Colleges | Sustainability Intern *City of Rancho Cucamonga* | January 2018 - May 2018
♦ Analyzed emissions data to create a baseline greenhouse gas inventory for Rancho Cucamonga Municipal Operations

RESEARCH EXPERIENCE

Analog Circuit Engineering Lab | Undergraduate Researcher *HMC* | January 2018 - present
♦ Model and simulate phase change memory arrays to determine how selector diode quantity limits array size
Internet Security Lab | Undergraduate Researcher *University of Nebraska-Lincoln* | June - August 2017
♦ Developed a public key exchange protocol to manage and distribute keys on the Interplanetary Overlay Network

PROJECTS

Syantiant Neural Network Clinic | Team Leader *HMC* | Fall 2019
♦ Develop a custom sensor system to classify significant events using a neural network deployed on NDP101 silicon
MIDI Pattern Visualizer *HMC* | Fall 2018
♦ Implemented a system that plays and displays a sequence of notes recorded from a MIDI keyboard
♦ Raspberry Pi sends notes over SPI to FPGA which stores the pattern in shift registers and interfaces to an LED matrix
Toyota Motor Fuel Cell Clinic *HMC* | Fall 2018
♦ Optimized power configuration of fuel cell stack and battery for chosen mid-sized North American vehicles
Autonomous Underwater Vehicle *HMC* | Spring 2018
♦ Built a robot that navigates underwater using acoustic control to follow a beacon and measure properties of the water
Vehicular Child Safety Device *HMC* | Fall 2017
♦ Developed a notification system using sensors in a car seat and driver's seat to alert parents who leave children in cars

ACTIVITIES

Digital Electronics Lab Proctor – Assist students with labs to ensure concept understanding *HMC* | August 2018 - present
Machine Shop Proctor – Supervise and guide students with machine use *HMC* | January 2018 - present
Wellness Peer – Organize events to promote seven dimensions of wellness *HMC* | August 2017 - present
Dorm Mentor – Serve as peer advisor for first-year students *HMC Division of Student Affairs* | August 2017 – present