Victoria Moran

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vickimoran.github.io

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 – Power Electronics | Electronic and Magnetic Devices and Circuits | Control Systems | Microprocessor Systems | Digital Electronics and Computer Engineering | Experimental Engineering

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 | R&D Systems Engineer Intern   May - August 2018
- ❖ Developed a new technology to reduce the time of curing various inks on textiles 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 quality 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

Toyota Motor Fuel Cell Clinic   *HMC* | Fall 2018
- ❖ Optimized power configuration of fuel cell stack and battery for chosen mid-sized North American vehicles

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

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 a 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* | Aug 2018 - present

Machine Shop Proctor - Supervise and guide students with machine use   *HMC* | Jan 2018 - present

Wellness Peer - Organize events to promote seven dimensions of wellness   *HMC* | Aug 2017 - present

Dorm Mentor - Serve as peer advisor for first-year students   *HMC Division of Student Affairs* | Aug 2017 - Dec 2018