Lauren Hu

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EDUCATION

Harvey Mudd College (HMC)
Bachelor of Science, Engineering — Expected Graduation: December **2018**

Courses: Radio Frequency Circuit Design (E190AK) | Intro to Analog Design / Engineering Electronics & Lab (E151) Engineering Clinic (E111-3) | Microprocessor-based Systems (E155) | Experimental Engineering - Rocketry (E80) Advanced Signals & Systems Engr. (E101-2) | Digital Electronics & Computer Engr. (E85) | Materials Engr. (E86) Electronic Circuits/Devices (E84) | Continuum Mechanics (E83) | Photography (A33) | Autonomous Vehicles (E11)

Honors: Harvey Mudd For Inspiration & Recognition of Science & Technology (FIRST) Scholarship (4 years)

SKILLS

Languages & Software: Proficient in Matlab | System Verilog | PCB design | Altium | PADS | KiCad | LTspice
Familiar with Python | Arduino | C | Git | Linux | HTML | SolidWorks | ModelSim

Tools & Equipment: Lathe | CNC Mill | DSLR | Soldering | Oscilloscope | Spectrum Analyzer | VNA

PROJECTS

Wireless pH Sensor Network – George Fischer Signet Clinic — HMC | Fall 2017 - Present
- Designing a mixed signal embedded system for industrial pH sensor networks in a team of 5
- Prototyped wireless power transfer and communication for a low power pH and temperature sensor device
- Board level hardware design, firmware development, signal conditioning, project management

Ukucorn – MicroPs Final Project (E155) — HMC | Fall 2017
- Designed and built a ukulele teacher with chord recognition and interactive fretboard LEDs in a team of 2
- LEDs embedded in the fretboard display a target chord, only changing after the correct chord is played
- SPI, frequency analysis, piezo sensor, analog filtering, ADC, FPGA, Raspberry Pi 3, ukulele

Aerocube Payload – The Aerospace Corporation Clinic — HMC | Spring 2017
- Worked on a picosatellite payload, joining a team of 4 for the second half of the project
- Supported debugging, testing, and delivery of a payload designed to determine the operability of the NVIDIA Jetson TX1 (1 TeraFLOP/s GPU) in low earth orbit

Sleep Dep Buddy – Mudd Hacks 2016: A Hardware Hackathon — HMC | Fall 2016
- 2nd place finish by a team of 4 and featured in the LA Times
- Made an animated blob on a 128x128 screen react to environmental changes
- Arduino, Pixel display, IMU, Phototransistor, LEDs, laser-cut shell

Pterodactyl Rocket – Engineering course (E80) — HMC | Spring 2016
- Modified an Aerotech Arreaux rocket for data collection in a team of 4
- Designed and populated a PCB to collect altitude, pressure, temperature, rotation, light, and humidity data
- Broke the sound barrier - confirmed by sound and data

Rick Roll with an ESP8266 – Campus prank — HMC | Fall 2016
- Created a device with tiny speakers controlled by a webpage to *Rick Roll* people remotely

WORK EXPERIENCE

Electrical Power Systems Intern - Millennium Space Systems — Los Angeles | Summer 2017
- Supported development of satellite electrical systems
- Schematic design and layout for digital and analog circuits, component selection & evaluation, verification testing

E85 Grader - Engineering Department — HMC | Spring 2018
- Graded weekly problem sets for students in Digital Electronics & Computer Engineering

Machine Shop Proctor - Engineering Department — HMC | Spring 2016 - Present
- Taught and supervised students in the machine shop

CS Summer Staff - Computer Science Department — HMC | Summer 2015
- Worked with Gentoo Linux as a system administrator

Founder - Relativistic Rhino Jewelry Shop — Honolulu & HMC | 2007 - 2017
- Designed, crafted, and sold jewelry at craft fairs and online - www.etsy.com/shop/relativisticrhinos