

mmaleno@hmc.edu

**Maxwell Maleno**

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## **Education:**

*Harvey Mudd College* – Claremont, CA – 3.5 Engineering GPA, May 2020 Graduation

- Microprocessors, Analog Electronics, Experimental Engr, Comm Systems, Adv. Systems Engr
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## **Skills:**

*Languages:* C/C++, Python, Linux, MATLAB, Verilog, Java, Mathematica, Arduino, R, HTML5 & CSS

*Software:* Code Composer, Altium, LTspice, Eclipse, LabView, SolidWorks, Quartus Prime, ModelSim

*Tools:* Logic Analyzer, Oscilloscope, Multimeter, Surface-mount station, Machine shop equipment

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## **Work Experience:**

*Embedded Systems Intern, Tyvak Nano-Satellite Systems, Irvine, CA*

Jun 2018 – Aug 2018

- Developed microcontroller driver for power monitor I<sup>2</sup>C IC (C++)
  - Designed 14 IC breakout modules for CubeSat regression testing
  - Created schematic validation tool to expedite FPGA approval process (Python)
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## **Leadership Experience:**

*Treasurer, Associated Students of Harvey Mudd College, Claremont, CA*

Apr 2018 – Present

- Manage annual budget of \$300,000
- Automated bookkeeping processes by writing Python scripts
- Organized shared governance petition which 520 (62%) students signed

*Machine Shop Proctor, Harvey Mudd College Machine Shop, Claremont, CA*

Dec 2017 – Present

- Oversee student usage of collegiate machine shop
  - Teach students proper machining techniques
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## **Projects:**

*Autonomous Campus Robot – Grant-Funded Project*

Dec 2018 – Present

- Project lead on semester-long project to build vehicle platform
- Localization team manager (RTK GPS)
- Autonomous vehicle will function as student shuttle / delivery robot

*Indoor Localization – Academic Project*

Sept 2018 – Dec 2018

- Finished year-long deliverables in less than 1 semester
- Project for construction vehicle company
- System to localize vehicle in warehouse
- Team lead on acoustic technologies

*LEXI Tracker – Personal Project*

May 2018 – Aug 2018

- GPS tracker to visualize dog location in real time
- Dog's collar hosts webpage on local Wi-Fi network
- Kitchen device reads telemetry from webpage
- Data & location outputted via GUI on 7 inch display

*Autonomous Surface Vehicle – Academic Project*

Mar 2018 – May 2018

- Unmanned autonomous water vehicle
- Navigates to a remote 433 MHz beacon
- Designed SPI bit-banging script to read RF strength from IC