

# Jacob Sigler

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24 Hillcrest Court, Rock Island, IL

## Education

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University of Michigan – Ann Arbor

B.S.E. Electrical Engineering (GPA: **3.47/4.00**)

Graduation: April 2018

## Employment Experience

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*Lutron Electronics Co: Electrical Engineering Intern*

May – Aug 2016

- Developed prototype for IR based smart thermostat user proximity sensing
- Performed root-cause analysis of ESD test failures and prepared report on improvements to product design to mitigate ESD damage
- Coordinated with international manufacture to troubleshoot end of line testing anomaly

*UM Medical School: Computer Support Agent*

Sep 2014 – Sep 2016

- Provided in person I.T. support to medical school staff, labs, and students

## Team and Project Experience

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*Michigan Aeronautical Science Association (MASA)*

Chief Engineer

May 2016 - Present

- Manage design-build-test cycle for student designed/built hybrid rocket
- Work with avionics, airframe, and propulsion leads to define overall system requirements
- Prepare documentation and technical reports for competition and critical design reviews
- Mentor teammates on machine shop tools including manual and CNC mill/lathe

Avionics Team Member

Sept 2014 - Present

- Designed high stability OCXO and clock distribution PCB for GPS receiver system
- Leading development of flight computer for live telemetry and parachute deployment
- Designed 900MHz transceiver PCB for rocket telemetry streaming and ground command

*Michigan eXploration Laboratory (MXL)*

Attitude Determination and Control Team Member

Oct 2016 - Present

- Developing PCB for CubeSat reaction wheel motor control
- Support PCB checkout procedures including assembly, testing, and troubleshooting

## Skills & Interests

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*Computer Skills*

- EDA: Altium Designer, Circuit Maker, Eagle, Vivado, Quartus
- CAD/CAM: Solidworks, Autodesk Fusion 360, GibbsCAM
- Programming/HDL: MATLAB, C, C++, Python, Verilog
- Proficient with Linux and Windows operating systems

*Manufacturing*

- Experience with composite wet layup, vacuum bagging, and filament winding techniques
- Proficient with basic machine shop tools
- Operator on manual and CNC mill/lathe

*Interests/Hobbies*

- Hobby rocketry (NAR L2) – Designed, built, and flew several high power rockets
- Amateur radio operator (KD9EBL) – Used for APRS high altitude balloon tracking