Drew Marschner
5506 5th Ave. #101A
Pittsburgh, PA 15232
(256) 318-3213
andrew.marschner@gmail.com
amarschn.github.io

SUMMARY OF QUALIFICATIONS

I have a wide range of skills, including 3D design, drafting, mechanical prototyping, software development and testing, debugging circuit boards, and CNC machinery operation. I am used to working with multidisciplinary teams of mechanical, electrical, and software engineers in a fast-paced atmosphere.

EDUCATION

Carnegie Mellon University — Pittsburgh, PA
M.S. Robotic Systems Development — Aug 2014 – Dec 2015

- Project: Worked as mechanical engineering lead in designing and building a modular robotics framework for use in research and education.
- Website: https://sites.google.com/site/mrsdproject201415teamd/
- Relevant Coursework: Machine Learning, Computer Vision, Robot Autonomy, Systems Engineering and Management for Robotics, Manipulation, Mobility, and Control

Vanderbilt University — Nashville, TN
B.E. Mechanical Engineering, Minor in Financial Economics — Aug 2007 – May 2011

WORK EXPERIENCE

Voxel8 — Boston, MA
Robotics Intern — May 2015 – August 2015

- Worked on a small, fast-moving team to develop a next-generation multi-material additive manufacturing system.
- Designed, fabricated, assembled, and tested electromechanical material dispensing mechanisms.
- Developed filament sensing method for use in 3D printing thermoplastics.
- Operated and maintained multiple 3D printers from companies including Stratasys, Ultimaker, and Makerbot.
- Assisted in coordination of part sourcing and manufacturing from multiple suppliers and manufacturers.

Qualcomm Government Technologies — San Diego, CA
Engineer — July 2011 – July 2014

- Designed prototype head mounted display as the team mechanical lead.
- Designed and drafted a large number of printed circuit boards, assemblies, and fixtures using Pro-Engineer/Creo.
- Fabricated and documented construction of micro-rover robot: https://developer.qualcomm.com/mobile-development/emerging-technologies/snapdragon-micro-rover
- Performed thermal analysis and testing of electromechanical assemblies using FloTHERM and Autodesk CFD.
- Performed MIL-spec environmental stress testing and analyses on deliverable products, resulting in improved performance in adverse environmental conditions of deliverable products.
- Drafted and performed test procedures of deliverable product that resulted in an improved UI and larger feature set, from release 3.0 to 4.0.
- Led project to design, prototype, and manufacture an electromechanical device used for mobile phone camera software testing.
- Operated 3D printer and CNC milling machine in fabrication and modification of prototype hardware.

SKILLS

- **Applications:** Microsoft Office, Eclipse, Solidworks, Autodesk Fusion 360, Autodesk CFD, FloTHERM, Creo
- **Development Platforms:** Windows, Linux, Android, Robot Operating System (ROS), Arduino
- **Programming Languages:** Java, Python, C/C++, MATLAB, Julia
- **Certifications:** TS-SCI Clearance (expiration 2016)
- **Fabrication Experience:** FDM, Polyjet, SLA, Laser Cutter, CNC Lathe, CNC Mill, Sheet Metal Forming, Vacuum Forming