Andrew Tracy

adtme11@gmail.com ■ www.adtme.com

EDUCATION

Carnegie Mellon University, School of Computer Science — Pittsburgh, PA
Master of Science, Robotic Systems Development — Dec 2017 (Expected)
GPA: 4.1/4.33

Rensselaer Polytechnic Institute — Troy, NY
Bachelor of Science, Mechanical Engineering — May 2011
GPA: 3.92/4.0

PROFESSIONAL EXPERIENCE

IAM Robotics — Sewickley, PA
Software Engineering Intern — May 2017-Aug 2017
- Developed Python modules and fabricated custom plates for calibrating RGB and depth sensors
- Implemented GPU kernels for camera correction that were deployed to production robots
- Developed target-finding algorithm using C++ and OpenCV for new customer applications
- Tested mobile app for warehouse layout configuration and used it to set up new zone in client warehouse

Pittsfield Plastics Engineering, Inc. — Pittsfield, MA
Design Engineer — Jan 2015-Jul 2016
- Modeled new and existing products and tooling in Solidworks and managed engineering model library
- Designed new measurement tools and standards to improve quality of floor tile product line
- Designed and built production monitoring system in PHP and MySQL to replace existing paper filing system
- Created and improved manufacturing processes to promote efficiency and safety

Omnimaker — Boulder, CO
Mechanical Designer — Sep 2013-May 2014
- Modeled 3D printer in Solidworks and produced design files for manufacturer
- Designed for ease of assembly, manufacturability, and aesthetics

Ascend Analytics, LLC — Boulder, CO
Senior Energy Analyst — Sep 2011-May 2014
- Deployed and debugged custom software systems involving database, analytics, and front end components
- Designed user input validation modules in SAS and .NET that were deployed to flagship software products
- Authored and managed technical and internal corporate process documentation
- Communicated with clients regarding software issues, submitted bug reports to developers, and followed through to ensure solution deployment

PROJECTS

SoyBot, a ground vehicle for soybean phenotyping — Sep 2016-May 2017
- Designed and built a ground vehicle that can collect and analyze high-resolution data in soybean fields
- Worked on a team of four; specialized in mechanical design and fabrication
- More info available at mrsdprojects.ri.cmu.edu/2016teami

Extracurricular projects
- Personal projects to learn and apply new skills (more info available at www.adtme.com/projects)
- Arduino-based robot, desktop binary clock, Raspberry Pi-based home automation system, pumpkin-throwing trebuchet, hydraulic ram pump

SKILLS

Programming: Python, SQL, C++, shell scripting, Java, SAS, PHP
Software: Excel, Solidworks, MATLAB
Computing Environments: Windows, Linux, Arduino, Raspberry Pi
Machinery: Makerbot 3D printer, mill, lathe, hand tools