Andrew Tracy

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EDUCATION

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

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

PROFESSIONAL EXPERIENCE

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

VOLUNTEER EXPERIENCE

Solid State Depot (The Boulder Makerspace) — Boulder, CO
Director/Secretary — Jan 2013-Jan 2014

- Created organizational structure, bylaws, and operational procedures to handle growing membership
- Organized workshop space and implemented safety protocols for tools and machinery
- Designed and built membership database in PHP and MySQL
- Coached attendees at fix-it clinic and helped them learn about and repair household items

PROJECTS

SoyBot, a ground vehicle for soybean phenotyping — Sep 2016-May 2017

- Designing and building a ground vehicle that can collect and analyze high-resolution data in soybean fields
- Working on a team of four, specializing in mechanical design and fabrication

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