



ENGINEER/DESIGNER/FABRICATOR

Pittsburgh | PA

peterleeman3@gmail.com

920.585.0456

OVERVIEW

Experienced interdisciplinary professional with many years of engineering, design, fabrication and research expertise in a diverse range of fields.

EDUCATION

Master of Mechanical Engineering
Carnegie Mellon University (3.3/4.0)

Pittsburgh, PA
Sept 2012 - May 2014

Bachelor of Mechanical Engineering
University of Minnesota (3.3/4.0)

Minneapolis, MN
Sept 2005 - Dec 2010

EXPERIENCE

ENGINEHOUSE CONTRACT FABRICATOR | ENGINEER

Pittsburgh, PA
Oct 2014 - Present

enginehouse.net

- High quality construction and woodworking, from framing to tiling to high end furniture making.
- Engineering consulting on various topics including energy modeling, sustainable building and renewable energy.

CENTER FOR ATMOSPHERIC PARTICLE STUDIES RESEARCH ASSISTANT

Pittsburgh, PA
Sept 2012 - May 2014

www.caps.web.cmu.edu
particulatematters.com

- Atmospheric science and air quality researcher specializing in aerosols
- Repaired and troubleshot an advanced online aerosol instrument called a single particle mass spectrometer which analyzes aerosols on a particle-by-particle basis.
- Led the design of a laser beam homogenization system for a high powered excimer laser used in single particle mass spectrometry.

DIAGNOSTIC BIOSENSORS MECHANICAL AND MANUFACTURING ENGINEER

Minneapolis, MN
Oct 2010 - Aug 2012

www.diagnosticbiosensors.com

- Electrical and mechanical design of printed circuit boards, biomedical devices, and manufacturing processes.
- Mechanical and fluidic design of biosensor components, fixtures and systems.
- As the only full-time employee at this small startup, i had to diversify my skills to fill many roles

UMN SOLAR DECATHLON TEAM LEADER | DESIGN ENGINEER

Minneapolis, MN
Oct 2008 - Nov 2009

solardecathlon.umn.edu
solardecathlon.gov

- Led a team to design and build a solar thermal and HVAC system for an international competition to design and build a sustainable solar house.
- Finished 1st place in Engineering and 5th place overall.
- Researched, designed, built and tested a residential liquid desiccant dehumidification system.
- Speaker, Minnesota AIA Convention 2009 and Guest Lecturer for a senior level ME class.

UMN HIGH TEMPERATURE AND PLASMA LABORATORY

UNDERGRADUATE RESEARCH ASSISTANT

Minneapolis, MN
Oct 2007 - Sept 2010

www.me.umn.edu/labs/highT

- Advanced undergraduate researcher specializing in operating complex, dangerous high temperature experimental systems
- Performed independent research investigating dislocation driven growth of ZnO nanowires.
- Acknowledged in A.M. Boies et al. 2009 Nanotechnology 20 295604.
- Trained on a scanning electron microscope (JEOL 6500), with many hours of experience.

COMPUTERS

Microsoft Office, Adobe Creative Suite, ArcGIS, Final Cut Pro, Google Cloud Software, SolidWorks, ProENGINEER, AutoCAD, Sketch-Up, Alibre Design, LabView, MatLab, Mathematica, DipTrace. C++ and C.

TOOLS/EQUIPMENT

Table Saw, Router, Jointer, Planer, Drill Press, Miter Saw, Band Saw, 3D Printer, Laser Cutter, CNC Mill, Metal Lathe, Hand tools