

Troy S. Niekamp

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EDUCATION

Massachusetts Institute of Technology (MIT) – Cambridge, MA

Candidate for Master of Science, Mechanical Engineering

June 2013, GPA: 5.0/5

- Relevant Coursework: Computational Science and Engineering, Thermodynamics, Product Design, IC Engines, Computer and Engineering Problem Solving, Global Entrepreneurship Lab
- Research at the Sloan Automotive Laboratory
 - Sponsored by Ford and under the advisorship of Professor Wai Cheng.
 - Project involves modeling the dilution tolerance of gasoline SI engines.
- GRE Quantitative: 790

The Ohio State University (OSU) – Columbus, OH

Bachelor of Science, Mechanical Engineering

June 2011, GPA: 3.93/4

- Minor in Economics
- Undergraduate research at the Gas Dynamics and Turbulence Laboratory
- University teacher assistant and tutor for precalculus

EXPERIENCE

Tel Aviv University Solar Energy Lab

Tel Aviv, Israel

MIT-MISTI Study Abroad Program

Summer 2012

- Analyzed selective solar coatings via spectral radiation measurement for use in concentrated solar power (CSP) systems. Performed under the direction of Professor Avi Kribus.

Det Norske Veritas

Columbus, OH

Integrity Management Consultant

Summer 2011

- Quantitatively assessed in Excel the safety and life of existing pipelines using design data sheets, pipeline schematics, and material order specification sheets.

United States Army

Aberdeen, MD

Engineering Intern – Light Armor – Confidential Security Clearance

Summer 2010

- Organized personnel, set up new test ranges, and conducted ballistic repeatability studies for light body armor testing.

Minster Machine Company

Minster, OH

Engineering Intern – Applied Research

Summer 2008, 2009

- Improved clutch performance and cut manufacturing costs by 15% via material reduction, increased manufacturability, and reduction in defects.

PROJECTS AND LEADERSHIP

- Autonomous Robot Design Competition (OSU)
 - Led 4-member team which design, built, and programmed a robot from basic materials.
- Tesla Turbine Group – Senior Design Project (OSU)
 - Constructed a test rig to measure torque, speed, and efficiency of a Tesla Turbine.
 - LabVIEW programming, data analysis using Matlab, and technical report writing.
- Team GreenJoule – Product Design Challenge (MIT)
 - Six member team which built a flexible, extendable power strip which outputs power to a smartphone app- personally responsible for the electronics and marketing strategy.
- Thirsty Ear Executive Committee Chair (MIT)
 - Coordinated interdepartmental mixers at our campus bar with actual attendance.
- Graduate Association of Mechanical Engineers Intramural Sports Coordinator (MIT)

TECHNICAL SKILLS

- Basic programming – Java, C, Matlab/Simulink, LabVIEW, HTML+CSS, Engineering Equation Solver (EES); 3D Modeling – Autodesk Inventor, SolidWorks; Microsoft Office – Word, Excel, PowerPoint, Access; GT-POWER engine simulation.