

Oleg Katykhin

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Objective Full-time entry level mechanical engineering position.

Education **University of Massachusetts Amherst** *May 2011*
Bachelor of Science in Mechanical Engineering

Coursework Production Planning and Control Engineering Wind Power Energy
Engr. Economy Decision Making Solar and Direct Energy Conversion
Human Factors Engineering

Academic Experience **Senior Project: Designed and Built Thermosiphon** *Jan.-May 2011*

- Generated and evaluated concepts using house of quality.
- Created engineering design details with CAD drawings and presented to classmates through PowerPoint presentation.
- Analyzed different materials that could be used and selected the most efficient ones through cost-benefit analysis.
- Constructed thermosiphon prototype out of sheets of metal and fiberglass and programmed it with BASIC Stamp.
- Presented the final project in front of class, professor and specialized field judges.

Redesign of an Axial Piston Pump Cylinder Housing *Sep.-Dec. 2009*

- Worked in a group of three to analyze pump failure at critical conditions and to make appropriate re-modifications for enhancing the performance of the pump.
- Finite element analysis supported by the modeling programs: SolidWorks, ProE, and ANSYS indicated that the failure came from a high impact region on the pump's housing.
- Redesigned pump and analyzed new design using ANSYS to lower the impact on the housing block and prevent future failure of the pump.
- Documented the results in a report, presented the conclusions to the professor and shared the analysis with the pump's designing company.

Hands-on Experience **Design of a More Efficient Home Heating System** *Apr.-May 2010*

- Acquired new skills in aluminum-to- copper and iron welding, plumbing, electric wiring, installing heating furnaces, sheet metal, and programing.
- Greatly improved communication and established interaction with over-sea suppliers.
- Performed an economic cost benefit analysis and did heat transfer calculations/models.

American Eastern Bible College Head Administrator *Sep. 2008-pr.*

- Organized the student committee, selected members, scheduled meetings and topics of discussions.
- Created surveys for students, developed ways to analyze them, and adapted changes based on them.

Skills **Modeling Software:** SolidWorks, ProE, ANSYS, and AutoCAD
Technical Programming: EES, MatLab, Mathematica, Visual Basic, and FrontPage
Application Software: Microsoft Word, Excel, PowerPoint, and Visio
Lab Equipment: Instron, Rockwell Hardness Tester, and Frequency Counter
Languages: Fluent Russian, intermediate Latin, studying Koine Greek