

Jakub Telatnik

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Other Proficiencies

- Electromechanical design
- Solid design, FEA analysis
- Energy modeling
- Technical writing, organization and presentation of data
- Analysis and optimization using numeric or software models

Software Proficiencies

Extensive use of SolidWorks in design of components and assemblies

Extensive use of ANSYS for FEA

Strong programming skills in C, familiarity with other languages

Familiarity with AutoCAD

Use of graphics design software to present technical information

Proficient with MS Office Suite

Formal Education

Bachelor of Applied Science, Mechanical Engineering
University of Toronto, May 2009
Cumulative GPA: 3.32

Areas of Study

Energy

- ✦ Thermodynamic theory of thermal cycles for power production and propulsion, internal combustion engines, heating and cooling systems
- ✦ Analysis of heat transfer mechanisms, development of models simulating heat transfer in systems using numerical methods
- ✦ Fluid mechanics theory applied to pipe networks, compressible flows, turbomachines, external flows, basic theory of computational fluid dynamics, laboratory work with microfluidic devices
- ✦ Combustion theory, chemical kinetics and pollutant formation, combustion systems and the effects of alternative fuels
- ✦ Environmental life cycle assessment, industrial ecology, design for pollution control and energy conservation

Solid Mechanics and Machine Design

- ✦ Selection of engineering materials, machine components, manufacturing processes, tolerance allocation
- ✦ Machine kinematics and dynamics
- ✦ Design and fabrication of mechanical joints and members
- ✦ Stress-analysis using finite element methods, theory of failure mechanisms, fracture analysis and material testing
- ✦ Design work and preparation of engineering drawings using SolidWorks

Mechatronics (Systems Engineering)

- ✦ Fundamentals of analog and digital electronic circuits with application to instrumentation and mechatronic systems
- ✦ Integration of sensors, actuators and microcontrollers in design and construction of automated systems and control systems

Additional Experience

- ✦ YYZ Systems (June 2009) · LED lighting design and electronic assembly
- ✦ J&D Plumbing (Summer and part-time 2003-2008)
 - Service and implementation of plumbing and radiant heating systems for new constructions of residential and commercial properties
- ✦ Completion of George Brown College basic and advanced machining training, additional experience working in UofT student machine shop
- ✦ Hobby/DIY experience with electronics and computer hardware