MICHAEL PHILIP SIKORA

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EDUCATION

Bachelor of Science, Mechanical Engineering Graduated Spring 2014
University of Maryland-College Park, MD
A. James Clark School of Engineering *Cumulative GPA* 3.2 | *Jr/Sr Semesters* 3.4
Dean's List | Fall 2013, Spring 2014

Relevant Coursework

Integrated Product and Process Development	Computer-Aided Design
Energy Conversion System Sustainability	Control Systems and Optimization
Product Engineering and Manufacturing	Mechanical Design of Electronic Systems
Entrepreneurship	Mircoelectromechanical Systems (MEMS) ~ *15 hrs. in clean room*

Computer Skills
MATLAB, Simulink, HTML 5.0, CSS3, Jquery, Ruby on Rails, Arduino C, C++, JAVA (Android)
Solidworks, Autodesk Inventor, PTC CREO, Eclipse, Microsoft's Office, the Adobe Suite

WORK EXPERIENCE

UMD Innovation Lab - College Park, MD *Winter 2014 to Present*
- Mechanical Engineer – research position focusing on assistive robotics
  - Developing an assistive device for people with visual impairments. The device uses a sensor array to determine the distance and height of objects.
  - Working in C++ and Linux. 3D modeling and 3D printed prototypes.

AP Ventures - Columbia, MD *Spring 2013 to Fall 2013*
- Web Developer
  - Developed online courses for Maryland's STEM program. Used HTML, CSS, and Jquery to design online apps and interactive features for the website.

S&V Development *Spring 2012 to Fall 2012*
- Co-Founder of College-Simple.com
  - My first startup. Programmed using AJAX methods an interactive website for young engineers at UMD to use for resources and advice.

ENGINEERING PROJECTS

Capstone Project - The Lacrosse Sidekick: *Fall 2013*
- Draft and Design Leader, CAD, Presenter, Technical Writer (5 members)
- Designed and prototyped an autonomous return device for lacrosse practices, similar to a pitching machine. Analyzed the potential concepts, market, costs, and final design. Built a prototype that was featured at a UMD design showcase.

DeWalt Power Tool Redesign: *Spring 2013*
- CAD, Presenter, Technical Writer, Design Leader (5 members)
- Wrote a 130 page benchmark report on a DeWalt screw gun comparing performance and costs to competitors. Redesigned the DeWalt to operate more efficiently during withdrawal tasks. Modeled and 3D printed a prototype which was presented to a board of DeWalt engineers.

Drug Delivery System: *Fall 2012*
- Programmer, Presenter, Technical Writer, Team Leader (5 members)
- Simulated a magnetized particle traveling through a blood vessel and attracted to an infected area by a magnetic field, using MATLAB. Used dimensionless analysis to account for scaling between models.

Solar/Molten Salt Power Plant: *Spring 2012*
- Programmer, Presenter, Design Leader (3 members)
- Designed, calculated, and coded the rankine cycle and the molten salt process with a gas burner. Successfully produced a constant 20 MW output of electricity over a day with varying humidity and temperature.

EXTRACURRICULAR

UMD Club Lacrosse (2012-2013) UMD Flag Football (2013) UMD SEE Media Editor (2012-2013)
Bitcamp (2014) – a UMD hackathon