

Michael Elliot King – Curriculum Vitæ

DEPARTMENT OF MECHANICAL ENGINEERING
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Born: February 14, 1991 – Quincy, MA
Nationality: American

Summary

I am an undergraduate Mechanical Engineering student interested in engineering design, robotics, and human computer interaction. I am currently looking for full time employment following my graduation in May 2014.

Education

2009 - 2014
(Expected) **B.Eng., Mechanical Engineering**
McGill University, Montreal, Quebec

Relevant Experience

- 8/2013 - Present **MECHANICAL ENGINEERING LEAD | CONTROL SYSTEMS**
McGill A.U.V. Robotics Design Team – Montreal, Quebec
Competing in AUVSI International RoboSub Competition in San Diego
Supervised by Professor Meyer Nahon
- Lead all mechanical design and manufacturing for a team of 80 students creating an autonomous underwater vehicle
 - Design, simulate, and implement control system for the propulsion of an unmanned submarine [Capstone Project]
 - CAD of the vehicle for FEA, dynamic modeling, 3D printing and simulations
- Summer 2013 **CONTROL SYSTEMS & ENGINEERING INTERNSHIP**
T. Davlin Glass – Cambridge, Massachusetts
Designer gold-leaf glass tiles and glass products
- Designed, manufactured, and wired systems to control the temperature of custom-built, high-powered glass kilns
 - Aided in the design and construction of additional kilns
- Summer 2012 & Summer 2013 **PAID ENGINEERING INTERNSHIP**
Robies Heating & Cooling HVAC – Hyannis, Massachusetts
- Calculated thermal loads
 - Developed and implemented automated programs for generating project estimates
 - Developed work flow and inventory management system
 - Recorded and analyzed air data
 - Provided company-wide technical support
 - Prepared reports for clients and staff
 - Analyzed sales trends and provided detailed reports

8/2012 - 8/2013

MATERIAL COLLECTION SYSTEM LEADER | MARKETING & MEDIA DIRECTOR

McGill LunarEx Robotics Design Team – Montreal, Quebec

Placed 12th out of 50 international teams at NASA's Lunabotics Mining Competition – Orlando, Florida

Supervised by Professor Peter Henry Radziszewski

- Member of a team of 40 students creating an autonomous mining lunar robot
- Lead the efforts of a five person group responsible for designing, constructing and assembling the mechanism that collects and dumps lunar regolith simulant
- Brought original concepts to realization through sketching, CADing, machining, assembly, and testing
- Machined & CNCed aluminum, moulded composites, 3D printed new materials, and fabricated sheet metal parts
- Developed rebranding strategies to increase interest and team credibility
- Enhanced project marketing and sponsorship visibility through media exposure
- Documented each step of the design process, meetings, outreach, and competition with my photography
- Shot, directed and edited a promotional film that was sent to all sponsors and shared on social media outlets

1/2013 - 8/2013

FRONT END & USABILITY LEAD

Braille University iPhone Application – Montreal, Quebec

Tool to aid in teaching Braille to blind children using an electronic medium

Supervised by Professor Jeremy Cooperstock, *McGill Center for Intelligent Machines*

- Created a mobile application focusing on usability and the user interface
- Using a user-centered design approach, created prototypes, conducted user-tests, and coded the application to be easy to use, even without the use of vision
- Collaborated with Braille education professionals to create an authentic curriculum and legitimate learning tool (Anne Jarry, Nathalie Martiniello: *Université de Montréal*)

Software & Programming Skills

Computer Aided Design: *Inventor, AutoCAD, Solidworks*

Data Analysis: *MATLAB, Excel*

Programming Languages: *Python, C, C++, Objective-C, ROS*

Version Control Systems: *Git, Autodesk 360*

Web Development: *HTML, CSS, Markdown, Jekyll, Google Analytics, SEO*

Digital Typesetting: *LaTeX, XeLaTeX*

Media & Graphics: *Illustrator, Lightroom, Photoshop, InDesign, Final Cut Pro*

Activities & Interests

2010 - Present

Photography - www.michaellelliotphotography.com

2009 - Present

McGill University Intramural Ultimate Frisbee (1st Place 2010, 2011)

2012 - 2013

Photo Contributor - [The McGill Tribune](#)

2011 - 2012

McGill Engineering Undergraduate Society Website Committee

2010 - 2011

McGill University International Student BUDDY Mentor Program

Last updated: January 31, 2014 • www.michaellelliotking.com