

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
Dean's Honour List, Dean's Multidisciplinary Undergraduate Research List

Relevant Experience

8/2013 - Present

MECHANICAL ENGINEERING LEADER | CONTROL SYSTEMS

McGill A.U.V. Robotics Design Team – Montreal, Quebec

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 build control system for the propulsion of an unmanned submarine [Capstone Project]
- Complete CAD of the vehicle for FEA, dynamic modeling, and simulations

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 workflow and inventory management system
- Recorded and analyzed air data
- Provided company wide technical support
- Analyzed sales trends and provided detailed reports

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

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 with two other students, 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: Autodesk Inventor, AutoCAD, Solidworks

Data Analysis: MATLAB, Excel

Scripting Languages: Python

Programming Languages: Python, C, Objective-C

Version Control Systems: Git

Web Development: HTML5, CSS3, Google Analytics, SEO

Digital Typesetting: L^AT_EX, X_YL^AT_EX

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

Activities & Interests

2010 - Present

Photography - www.michaelelliotphotography.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 (Director: Dora Vincelli)

Professional Associations

Member, Canadian Association of Physicists

Member, Institute of Physics

Member, Sigma Xi Scientific Society

Languages

English (native speaker)

Spanish (professional proficiency)

French (professional proficiency)