

# Michael Elliot King — Curriculum Vitæ

DEPARTMENT OF MECHANICAL ENGINEERING  
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Born: February 14, 1991 — Qunicy, 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 - Present     **B.Eng., Mechanical Engineering**  
*McGill University*, Montreal, Quebec

## RELEVANT EXPERIENCE

8/2013 - Present     **MECHANICAL ENGINEERING LEADER | CONTROL SYSTEMS**  
*McGill A.U.V. Robotics Design Team* – Montreal, Quebec

- 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
- Provide company wide technical support
- Prepared reports for clients and staff
- 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

- Member of 40-man team 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
- Developed rebranding strategies to increase interest and team credibility
- Enhanced project marketing and sponsorship visibility through media exposure
- Designed logos and graphics and created team apparel, posters, and banners
- 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

- 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 for the blind
- 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: C, C++, Objective-C

Version Control Systems: Git

Markup Languages: HTML5, CSS3

Website Management: Google Analytics, SEO

Digital Typesetting: L<sup>A</sup>T<sub>E</sub>X

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