

# Michael Elliot King – Curriculum Vitæ

DEPARTMENT OF MECHANICAL ENGINEERING  
MCGILL UNIVERSITY  
817 Sherbrooke Street West  
Montreal, Quebec H3A 0C3 Canada

☎ 1 (617) 633-0828  
✉ [michael.king2@mail.mcgill.ca](mailto:michael.king2@mail.mcgill.ca)  
in [linkedin.com/in/michael Elliotking](https://www.linkedin.com/in/michael Elliotking)  
🌐 [www.michael Elliotking.com](http://www.michael Elliotking.com)

Born: February 14, 1991 – Quincy, MA  
Nationality: American

## Summary

I am a recent graduate of McGill University passionate about engineering design, specifically robotics and human computer interaction. I am currently looking for full time employment starting in September 2014, following my design team commitments.

## Education

2009 - 2014 **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 the control & propulsion system of an unmanned submarine using C++ and ROS [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 **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: *HTML5, 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.michaelleliotphotography.com](http://www.michaelleliotphotography.com)

2009 - 2014

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: May 22, 2014 • [www.michaelleliotking.com](http://www.michaelleliotking.com)