## Curriculum Vitae,

# **Gavin Kenneally 9364099**

#### **Personal Data:**

Citizenship Canadian

Address 5630 Queen Mary Rd

Montreal, Quebec H3X 1W9

Telephone (514) 979 2062

email <u>gavin.kenneally@gmail.com</u>
web www.gavinkenneally.com

Languages English, French

### **Current Academic Information:**

Faculty Engineering and Computer Science

Department Mechanical and Industrial Engineering

Program Mechanical Engineering

Credits Completed 83.5 Cumulative GPA 4.09

### Awards:

2010 Concordia University Small Grants Program (CUSGP) awarded to

help fund a research project, investigating an active spine

hexapod robot.

2010 Russell Breen Scholarship, awarded based on GPA

2010 National Science and Engineering Research Council of Canada

(NSERC) Summer Research Scholarship. Research Assistant in

Hybrid Control Systems Lab.

2010 Concordia Institute of Aerospace Design and Innovation (CIADI)

Summer research grant.

2010 Garnet Key Ambassador, Vice-President (Concordia University's

Official Honour Society)

2009 National Science and Engineering Research Council of Canada (NSERC) Summer Research Scholarship. Research Assistant in

Mechanics of Advanced Materials Lab.

**Work Experience:** 

2010-2011 Summer Research Assistant, Hybrid Control Systems Lab (Dr. Luis

Rodrigues, Dept. Electrical & Computer Engineering)

2009 Summer Research Assistant, Physics of Advanced Materials Lab

(Dr. Paula Wood-Adams, Dept. Mechanical & Industrial

Engineering)

2008 Intern: Allen Vanguard International (Cork, Ireland), Explosive

> Ordinance Disposal Robot Manufacturer. My responsibilities included mechanical and electrical assembly, robot testing and quality assurance, as well as the design and implementation of a

chain tensioner.

2007 Intern: Genome Quebec, Montreal. I did research on cellular

tracking and simulation. I gained experience using MATLAB as well

as many other laboratory procedures.

2002-2006 Summer Employee: King Canada Tools (power tools importer and

> distributer). I was responsible for repairing and maintaining various power tools including table saws, air compressors, and

gasoline generators.

**Academic Background:** 

Sept. 2006-May 2008

DEC in Pure and Applied Science, Marianopolis College, Montreal

Sept. 2003-May 2006

High School Diploma, Selwyn House School, Montreal

#### Research:

2010-Present Research on using 3D printing technology for Shape Deposition Manufacturing. This is a self-motivated project in association with Dr. Paula Wood-Adams' Mechanics of Advanced Materials Lab.

2009-Present Article entitled "Biologically Inspired Telescoping Active Suspension Arm Vehicle," article presented in the AIM 2010 IEEE/ASME Mechatronics Conference, 2010, co-authored with Dr. Luis Rodrigues. This project originated with my own independent, research, but by invitation of Dr. Luis Rodrigues I have continued to work on the project in his HYCONS lab with funding support from NSERC and CIADI. This work has culminated with a journal article entitled "Design, Construction, Modelling and Analysis of an Actively Telescoping Suspension Arm Vehicle" submitted to special issue of ASME JMD dedicated to "Designing Complex Engineered Systems"

2008

Research on the effects of magnetic fields on the crystallization of polylactide as a manufacturing means. This work was done under the supervision of Dr. Paula Wood-Adams in her Mechanics of Advanced Materials Lab and was funded by an NSERC scholarship. This research culminated in the consideration of an aspect of my work for a patent.

2006-2007

Design and prototyping of a cam-based active suspension vehicle. I developed a small scale active suspension system from scratch as an independent project. I brought this vehicle all the way from concept to model to mechanical system which finally an actively controlled vehicle. For the purposes of this project, I taught myself Computer Aided Design, Modelling, and Simulation as well as Computer Numerical Controlled Machining.

#### **Extra Curricular Activities:**

Prototyping of experimental research equipment and robotic platforms in my at home machine shop. This entails both design and manufacturing of components, but also includes commissions from other laboratories and researchers.

I am a student mentor and instructor to students age 8-12 at the Kateri School in Kahnawake, QC. In 2010 I gave a weekly science workshop and in 2011 I am developing and giving a robotics workshop.

Sport activities: squash, skiing, cycling. I am an avid cyclist, culminating in my participation in the Ride to Conquer Cancer in which I was a member of the three person Concordia team. I personally raised \$10,000 for this two day 300km bike ride from Montreal to Quebec City.

Throughout high school and CEGEP, I participated, and served as captain for two years (in my final years of high school and CEGEP), in robotics competitions at the regional and national levels. These included the CRC and FIRST robotics competitions. As captain, my responsibilities included, in addition to design and construction, taking a holistic approach to the task at hand through coordination of team activities, fundraising, and representing the organization in public forums such as student government.

January 2011