# **Andrew Talor Wong**

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**EDUCATION** 

University of Toronto, Toronto, Ontario, Canada

Bachelor of Applied Science (B.A.Sc.) in Engineering Science

Sep 2011 – Jun 2015

Biomedical Systems Engineering Option Thesis: Cell Compatibility of Antimicrobial Electrospun Scaffolds

Supervisor: Prof. J. Paul Santerre and Meghan Wright

University of Toronto Schools, Toronto, Ontario, Canada

Ontario Secondary School Diploma

University of Toronto Schools Diploma Ontario Scholar's Award, Lieutenant Governor's Community Volunteer Award Sep 2005 - Jun 2011

RESEARCH **EXPERIENCE**  4th Year Thesis, Toronto, Ontario, Canada

Sep 2014 – Apr 2015

Thesis: Cell Compatibility of Antimicrobial Electrospun Scaffolds

Supervisor: Prof. J. Paul Santerre and Meghan Wright

Research areas: Biomaterials, Tissue Engineering, Regenerative Medicine, Dental implants

The goal of this project is to evaluate cell compatibility of antimicrobial electrospun scaffolds, in order to assess their suitability as infection resistant tissue engineering scaffolds.

Engineering Science Capstone Project, Toronto, Ontario, Canada

Sep 2014 – Apr 2015

Project: An Android-based system for frequent upper-limb functional workspace measurements to track

neurological recovery Supervisor: Prof. José Zariffa

Research areas: Neurorehabilitation, Engineering in a Clinical Setting, Android development

The goal of this project is to create an Android-based app with utilizes a smartphone paired with a smartwatch in order to track upper-limb functional workspace. This would allow for clinicians to monitor patients' progress

without visits to the clinic and allow for better personalization of the treatment process.

Max Planck Institute for the Structure and Dynamics of Matter, Hamburg, Germany

Summer Research Student

Jun 2014 – Aug 2014

Miller Group, Center for Free-Electron Laser, Deutsches Elektronen-Synchrotron Project: Design and simulation of a 300keV electron gun for coherent imaging.

Supervisors: Dr. Günther Kassier and Prof. Dwayne Miller

Research areas: Electric field simulations, Particle tracking, Imaging

**ACADEMIC HONORS** & AWARDS

Dean's List, Fall 2012, Fall 2013, Winter 2014 For attaining a cumulative average of 80% or higher. 2012 - 2014

Engineering Science International Research Opportunity Grant

Jun 2014

Provides a full stipend for students to participate in an international research exchange opportunity. One of 28 awardees.

President's Entrance Scholarship, University of Toronto

Sep 2011

Provides an entrance scholarship to students scoring 92% or higher at the time of admission.

Ontario Scholar's Award

Jun 2011

Awarded to high school students who attains an average of 80% or higher in grade 12.

Lieutenant Governor's Community Volunteer Award

Jun 2011

"The Lieutenant Governor's Community Volunteer Award for Students pays tribute to students who not only complete the required number of volunteer hours to graduate, but who go above and beyond. Each year, an award is given to one graduating student at each of Ontario's secondary schools."

Taken from the website of the Ministry of Citizenship, Immigration and International Trade

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## CAMPUS ACTIVITIES

# Nocturne, University of Toronto

Sound Engineer

Sep 2013 – Apr 2015

Nocturne is Engineering Science's annual student talent show. My role was to manage all audio-related equipment, including rental, setup, and operation of microphones, speakers, and instruments. This show sees over 15 acts performed by Engineering Science students, and is open to all.

#### University of Toronto Engineering Kompetition, University of Toronto

**Participant** 

Jan 2014

The University of Toronto Engineering Kompetition (UTEK) is an annual competition which allows undergraduate engineering students from UofT to qualify for a position to represent UofT at the Ontario Engineering Competitions. In our year, the goal was to design a robot which could read a code and then orbit one of several objects located randomly in the area.

# OTHER WORK EXPERIENCE

#### **Private Tutor**

Various

Sep 2011 – Jun 2014

Private tutoring service to students of all ages, mainly in the field of mathematics.

#### Children's Technology Workshop, Richmond Hill, Ontario, Canada

iCamp Technology Instructor

Jun 2012 – Aug 2012

Developed and delivered an engineering and technology-based curriculum to children from 6 - 14. Provided first-line hardware and software technical support, including all related teaching materials and technologies.

#### RobotX, University of Toronto, Toronto, Ontario, Canada

Team Advisor

May 2012

Assisted teams of high school students in designing and building remote-controlled battle bots from scratch. Worked in the machine shop to help fabricate acrylic parts using saws and drill press.

#### Pro. Scholar Inc. - Kumon Learning Center, Toronto, Ontario, Canada

Assistant Teacher

Sep 2010 – Dec 2012

Worked with students of all ages and abilities with math and reading, following the Kumon curriculum. Managed students' files, prepared homework assignments, and data entry.

#### Spirit of Math Schools Inc., Toronto, Ontario, Canada

Assistant Teacher

Sep 2009 – Jun 2012

Taught students in grades 3, 4, 6, and 8 either through individual help, or as a class. Assisted teacher with various classroom activities, including taking attendance, collecting and returning homework, and assisting students during work periods.

#### Sunnybrook Hospital, Toronto, Ontario, Canada

Volunteer

Aug 2008 – Jun 2011

Worked in Veteran's Care (patients with dementia), Renal Unit and Dialysis Ward, Hospital Gift Shop. Responsibilities include: ensuring patient comfort during his/her stay, transporting patients around the hospital to and from the ward, assisting nurses to ensure patients arrive in a timely manner and are in the correct location, opening and closing the gift shop and daily operations.

#### **LANGUAGES**

English: Native language.

Cantonese Chinese: Intermediate (speaking). French: Basic (speaking, reading, writing). German: Basic (speaking, reading, writing).

## **SKILLS**

LATEX, MATLAB, Java, Android development, C, Teaching, Curriculum development, Mammalian cell culture, Bacterial cell culture, Scanning electron microscopy, Laboratory safety.