4A Civil Engineering

#### **SKILLS**

#### **Technical**

- o Experienced with roadway geometric, roadside, and traffic signal design
- o Familiar with asphalt, concrete, and soil testing procedures and standards
- o Exposure to project management, contract preparation, and building, property, and road inspections
- o Strong data analysis and technical writing skills

## Computer

- Skilled with AutoCAD, Microsoft Office (Word, Excel, PowerPoint), Photoshop
- o Familiar with Synchro, MATLAB, HTML, CSS
- o Exposure to SAP2000, 3ds Max, Civil 3D, JavaScript

### **Personal**

- o Demonstrated leadership capabilities through coaching and captaining experiences
- Strong organization and time management skills
- o Independent, creative, quick learner

#### **EDUCATION**

## **University of Waterloo**

Waterloo, ON

Candidate for Bachelor of Applied Science, Civil Engineering

Sep. 2011 – Apr. 2016

## **Traffic Engineering** (CIVE 343)

- o Determined capacity and delay of signalized and un-signalized intersections
- Calibrated isolated and coordinated traffic signal timing plans

# **Transport Principles and Applications** (CIVE 342)

- o Determined optimal geometric and pavement design for a highway based on a set of design criteria
- o Introduced to queueing theory and demand models

### **Geotechnical Engineering 1** (CIVE 353)

- o Determined soil characteristics through laboratory testing
- $\circ\quad$  Analysed effective stresses on soils in order to determine failure criteria

### WORK EXPERIENCE

### **Regional Municipality of Niagara**

Thorold, ON

Engineering Technician

Jan. – Apr. 2015

- Designed and developed drawings for roadway reconstruction and intersection improvements
- o Audited and updated as-built drawings for recent traffic signal construction projects
- Assisted in the preparation of contract and tender documents for road construction projects

## **Amico Infrastructures**

Windsor, ON

Student Project Manager/Field Assistant

May - Aug. 2014

- o Assisted project manager with field and office duties on Rt. Hon. Herb Gray Parkway
- Collected and tracked foreman paperwork (timesheets, trucking and stone tickets, safety documents)
- o Managed quality inspection and Time and Materials documents

# **Ontario Ministry of Transportation**

Road Design Engineering Assistant

St. Catharines, ON Sep. – Dec. 2013

- o Updated drawings for roadside barrier installations (temporary concrete barrier, cable guide rail)
- o Updated drawings for MTO Bikeway Design Manual and AODA compliant Detectable Warning Systems
- o Carried out quantity and cost estimates for safety improvement alternatives

## **Ontario Ministry of Transportation**

St. Catharines, ON

Jan. – Apr. 2013

Road Maintenance Engineering Assistant

- o Assisted in writing a paper on the effects of climate change on winter road maintenance
- o Analyzed Ontario climate data for use in winter maintenance database
- $\circ~$  Assisted in organizing the  $2^{\rm nd}$  annual MTO Pavement Markings Workshop

LVM Inc.

Toronto, ON

Laboratory Technician

May – Aug. 2012

- o Performed QA testing on various materials, including hot mix asphalt, asphalt cement and asphalt emulsion
- Responsible for receiving, preparing and testing of samples according to standard test procedures and project requirements (ASTM, OPSS, AASHTO)

# **International Erosion Control Systems**

LaSalle, ON

2008-2011

- Drafting Technician
- o Prepared AutoCAD drawings of concrete erosion control blocks for various projects
- Exposed to basic erosion control measures

#### VOLUNTEER EXPERIENCE

# South County Volleyball Club Developmental Program

Windsor, ON

Assistant Coach

Oct. 2010 - Aug. 2011

- o Aided students ages 7 to 14 in basic skills and strategies of volleyball
- Assisted head coach with skill demonstrations and education, ran warm-up activities, facilitated gameplay situations

### AWARDS AND CERTIFICATIONS

- o Windsor-Essex Chapter Professional Engineers Ontario Scholarship, Nov. 2011
- o President's Scholarship, University of Waterloo, August 2011
- o Queen Elizabeth II Aiming For The Top Scholarship, Sep. 2011
- o Ontario Scholar Award, June 2011
- Ontario French Immersion Certificate, Jun. 2011
- o Sandwich Secondary School Honour Roll, 2008-2011

## **ACTIVITIES AND INTERESTS**

## Volleyball

- o Captain of Civil Engineering class team, 2012 present
- o High School Team member, Nov. 2007 Mar. 2011

### Art

- o In the process of writing and drawing an adventure/fantasy webcomic
- o Developed comic hosting website using HTML and CSS