

# Cody Howarth

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## EDUCATION

### UNIVERSITY OF TORONTO

**HONS. BSc IN COMPUTER SCIENCE**  
Specialized in Computer Systems  
Graduated May 2018 | Toronto, ON

### CONESTOGA COLLEGE INSTITUTE OF TECHNOLOGY AND ADVANCED LEARNING

**MECHANICAL TECHNICIAN**  
General Machinist (Apprenticeship)  
Graduated 2008 | Kitchener, ON

## CERTIFICATION

### GENERAL MACHINIST CERTIFICATE OF QUALIFICATION

Ministry of Training, Colleges and  
Universities, Government of Ontario  
Received 2010 | Kitchener, ON

## EXPERIENCE

### ONTARIO TEACHERS PENSION PLAN

Software Developer Intern

Toronto, ON | May 2016 - August 2017

- Worked on front-end, back-end and database components (full stack)
- Worked on multiple projects start to finish (from planning phase to first release)
- Made design/architecture designs as an experienced project member
- Helped to train/onboard new interns
- Updated/maintained large existing code bases (+30K LOC)
- Presented/demoed ongoing and newly released work to business partners
- Created/maintained documentation for new and existing projects
- Gave input at project planning phase
- Pulled items from a work list and completed them independently
- Reported progress at daily/weekly meetings
- Participated in stakeholder meetings/product demos
- Participated in user groups to tailor the product to the user's needs

## SKILLS

### PROFICIENT

- Java

### INTERMEDIATE

- JavaScript
- Python
- C

### LEARNING/BEGINNER

- Bash/Shell Scripting • C#

### TOOLS/TECHNOLOGIES

- Spring • SpringBoot • AngularJS • JavaEE • JPA/Spring Data JPA • Hibernate • React • Websphere • Git/Github • SVN • MongoDB • SQL • iSeries/DB2 • Xquery/Xpath • Vim • IntelliJ • Unity 3D

### OS

- Linux (Debian) • Windows • OSX • iOS • Android

## COURSEWORK

- Math Expression and Reasoning for Computer Science
- Theory of Computation
- Computer Organization (Hardware)
- Computer Graphics
- Database System Technology
- Software Design
- Software Engineering
- Calculus
- Linear Algebra
- Probability with Computer Applications
- Software Tools and Systems Programming
- Data Structures and Analysis
- Algorithm design, complexity and analysis
- Computer Networking Systems
- Programming on the Web
- Introduction to Artificial Intelligence

## PROJECTS

### ROAD RAGE

**DRIVING SIMULATOR DESIGNED TO FACILITATE NEUROSCIENCE  
RESEARCH INTO DECISION MAKING.**

Summer 2018 - Present

- Prototyped the project from concept
- Developed a path-following AI system to allow for accurate testing of the user's decision making
- Developed a JSON driven terrain generation system
- Built in Unity 3D using C#

### SPAGHETTI MAKES ME MOODY

**NATURAL LANGUAGE WEB APP**

Winter 2018

- Used React Native to design an interface to google's natural language API
- Created for CSC309 | Programming on the Web

## EXPERIENCE

### 2CM INNOVATIVE MACHINING

General Machinist

Guelph, ON | July 2012 - July 2013

- Worked independently to plan and quote new work
- Independently maintained an entire machine shop
- Consulted on the manufacture of custom components for in-house machine builds

### COMTECH MFG., A DIVISION OF LINAMAR CORPORATION

General Machinist

Guelph, ON | August 2009 - June 2012

- Aided in the precision machining of high-tolerance machine replacement and prototype parts
- Programmed and operated Computer-Numerical-Control machining centers for specialized low-volume production runs
- On-the-fly manufacture of critical components for downed production equipment

## PROJECTS

### TRIVIA BATTLE

GAME ACROSS DEVICES USING WEBSOCKETS

Fall 2017

- Researched and integrated several technologies including Redis, Websockets and NodeJS
- Helped design project architecture to allow for smooth, rapid scaling to multiple client and game server instances

### NEARBY

A WEB APP FOR NEARBY SERVICES

Fall 2015

- Working in a team context to design and build a responsive web app.
- Personal contribution: back-end programming in python, to integrate MongoDB and provide functionality for the front-end team
- Created for CSC301 | Software Engineering
- Originally developed using Github | git

### TRIAGE APP

ORCHESTRATE TRIAGE LOGISTICS FOR HOSPITAL STAFF

Oct-Dec 2014

- Working in a team context, developed a mobile application for android that can be used by hospital staff to collect patient information and assist in performing triage for patients who arrive at the hospital Emergency Room
- Created for CSC207|Software Design
- Originally developed using Subversion | svn