

# Tom Stesco

tomstesco.com

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## EDUCATION




### ETH ZURICH

**MSC IN INTEGRATED BUILDING SYSTEMS**  
Sep 2018 (Exp) | Zurich, Switzerland

### UNIVERSITY OF WATERLOO

**BASC IN CIVIL ENGINEERING**  
June 2016 | Waterloo, ON  
Final year average: 90%

## LINKS

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## COURSEWORK

### GRADUATE

Model Predictive Control  
Building Control and Automation  
Technology and Innovation Management  
Infrastructure Management  
Materials and Constructions  
Renewable Energy Technologies  
Energy Conversion  
Application of CFD in Buildings  
Whole Building Simulation  
Building Physics  
Urban Physics

### UNDERGRADUATE

Building Science  
Building Energy Performance  
Contaminant Transport  
Hydraulics  
Civil Systems  
Solid Mechanics  
Fluid Mechanics

## SKILLS

### PROGRAMMING

Over 5000 lines:  
Python • Modelica • Javascript • SQL  
Over 1000 lines:  
Matlab • C++ • Java • C# • VBA • Bash  
Familiar with:  
PyMC3 • Theano • Tensorflow  
JModelica • CasADi • FMI  
linux • ssh • git

## EXPERIENCE

### ENERGY PROFILES LIMITED | ENERGY DATA ANALYST

Sep 2015 – Dec 2015 | Toronto, ON

- Developed T-SQL application to detect equipment or data issues based on user defined stochastic models from energy data.
- Improved internal C# application for estimating missing energy bill data.
- Added features and fixed bugs in Java and SQL for energy data pipeline.

### AECOM CANADA | CIVIL WATER TECHNOLOGIST

Jan 2015 – Jun 2015 | Markham, ON

- Worked with sensor maintenance team to digitize workflow using windows API.
- Automated task of importing sensor data and producing reports for clients.
- On-call remote support and software maintenance.

### DRAGADOS CANADA | CIVIL ENGINEERING STUDENT

May 2014 – Aug 2014 | Toronto, ON

- Automated cost estimating and reporting of road and sidewalk closures for Eglinton LRT project bid.
- Analyzed contracts and construction staging plans to help build strategy for lane closures.

### UNION PEARSON EXPRESS | ENGINEERING ANALYST

Sep 2013 – Dec 2013 | Toronto, ON

- Worked with company executives on development of transit system pricing strategy.
- Compiled existing data and consultant reports to estimate impacts of pricing on ridership and revenue.

## RESEARCH

### AUTOMATIC CONTROL LAB | MASTER STUDENT

Sep 2017 – Sep 2018 | Zurich, Switzerland

- Worked with Dr. Annika Eichler on the humans-in-the-loop project for building controls combining Model Predictive Control (MPC) and online Bayesian machine learning.
- Developed Python API on top of MPCPy to create and manage Modelica building models throughout non-linear optimization pipeline.
- Designed online Bayesian inference models and deployment for training on HPC cluster.

## AWARDS & PROGRAMS

2016	Excellence Scholarship & Opportunity Program	ETH Zurich
2016	Engineer of the Future Fund	University of Waterloo
2012	Merit Scholarship	University of Waterloo
2010	SHAD summer program	SHAD Canada