

# Tom Stesco

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## EDUCATION




### ETH ZURICH

**MSC IN INTEGRATED BUILDING SYSTEMS**  
October 2018 | Zurich, Switzerland

### UNIVERSITY OF WATERLOO

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

## LINKS

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## COURSEWORK

### GRADUATE

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

### UNDERGRADUATE

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

## PROGRAMMING

Over 32 KLOC:

Python

Over 8 KLOC:

C++

Over 4 KLOC:

Bash • SQL • Java • Javascript

Familiar with:

PyMC3 • Theano • Tensorflow

GNU/Linux • git • docker

## EXPERIENCE

### ECOBEE | DATA SCIENTIST

Oct 2018 – present | Toronto, ON

- Research and development of high-level control algorithms for embedded smart thermostat devices.
- Implementation of continuous testing and deployment system for control algorithm software.

### ENERGY PROFILES LIMITED | ENERGY DATA ANALYST INTERN

Sep 2015 – Dec 2015 | Toronto, ON

- Developed equipment issue and data error detection application using energy submeter data.
- Improved internal C# application for estimating missing energy bill data.

### AECOM CANADA | CIVIL TECHNOLOGIST

Jan 2015 – Jun 2015 | Markham, ON

- Worked with water flow sensor technician team to digitize workflow.
- Automated task of importing sensor data and producing reports for clients.

### 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 transit system pricing strategy.
- Compiled data and consultant reports to model pricing, ridership, and revenue.

## RESEARCH

### AUTOMATIC CONTROL LAB | MASTER STUDENT

Sep 2017 – Sep 2018 | Zurich, Switzerland

- Worked with Dr. Annika Eichler on project combining Model Predictive Control and online Bayesian learning for building controls.
- Developed Python API on top of JModelica framework to create MPC models and run building simulation experiments.
- Designed MPC coupled online Bayesian learning models using PyMC3 and deployment environment 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            |