

Tom Stesco

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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
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
Contaminant Transport
Civil Systems
Hydraulics
Solid Mechanics
Fluid Mechanics

SKILLS

PROGRAMMING

Over 8000 lines:

Python

Over 4000 lines:

Javascript • SQL

Over 2000 lines:

Modelica • Matlab • C++

Java • C# • VBA • Bash

Familiar with:

PyMC3 • Theano • Tensorflow

JModelica • CasADi • FMI

linux • ssh • git

EXPERIENCE

ENERGY PROFILES LIMITED | ENERGY DATA ANALYST INTERN

Sep 2015 – Dec 2015 | Toronto, ON

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

AECOM CANADA | CIVIL TECHNOLOGIST

Jan 2015 – Jun 2015 | Markham, ON

- Worked with water flow sensor technician 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 JModelica framework to create MPC models and run software-in-the-loop experiments.
- Designed MPC coupled online Bayesian inference 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