

# Ian Dewancker

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## Experience

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### Uber Advanced Technologies Group

Pittsburgh, PA, USA

*Machine Learning Engineer*

*Jan 2017–Present*

Working on improving actor trajectory prediction as part of Uber's autonomous driving system

### SigOpt Inc.

San Francisco, CA, USA

*Research Engineer*

*Jul 2015–Dec 2016*

Lead design and development of an evaluation system for SigOpt's core optimization engine

Researched and evaluated ideas from sequential model based optimization literature

Developed SigOpt integration examples with machine learning frameworks (scikit-learn, TensorFlow, MLlib)

### Yelp Inc.

San Francisco, CA, USA

*Data Mining Engineer*

*Mar 2014–Jul 2015*

Lead the engineering efforts deploying spam text classifiers for private messages and general purpose forum

Designed features and lead team in developing classifier for automated (bot) account detection

Worked to identify users at risk for account take-over and reset their security credentials

### École Polytechnique Fédérale de Lausanne

Lausanne, Switzerland

*Research Intern*

*May 2011–Aug 2011*

Performed data collection using structured light scanner for performance capture project

Developed face fitting tool to assist in generating training data for expression models

Evaluated fit accuracy of two expression models

## Education

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### University of British Columbia

Vancouver, BC, Canada

*Master's of Science, Computer Science*

*2011–2014*

Courses in machine learning, computer vision, robotics, mechanical engineering (GPA 84/100)

Graduate teaching assistant for first year course in discrete math and digital logic

Thesis on lifespace tracking with mobile phones for individuals with mobility impairments

### University of Waterloo

Waterloo, ON, Canada

*Bachelor's of Software Engineering, Mathematics / Engineering*

*2006–2011*

Graduated with distinction on the dean's honour list (GPA 87/100)

Undergraduate research assistant in Electrical & Computer Engineering department

Undergraduate teaching assistant for first year calculus and algebra and courses

## Technical Articles

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*Bayesian Optimization for Machine Learning : A Practical Guidebook*

*A Stratified Analysis of Bayesian Optimization Methods* : Poster at ICML 2016 AutoML Workshop

*Evaluation System for a Bayesian Optimization Service* : Poster at ICML 2016 MLSystems Workshop

*Interactive Pref. Learning of Utilities for Multi-Objective Optimization* : Poster at NIPS 2016 FILM Workshop

## Other Projects

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**sublexis**: A free tool for improving French, English or Spanish vocabulary. It presents users with chains of flashcards using images taken from film scenes as word context examples ([www.sublexis.com](http://www.sublexis.com))

**vizDAT**: Open source interactive visualization tool to assist feature engineering and introspection when developing predictive models ([github.com/iandewancker/vizdat](https://github.com/iandewancker/vizdat))

**simple-ec2**: Lightweight tool to quickly provision and setup small master/worker clusters in AWS. Suitable for prototyping machine learning models and experimenting with distributed optimization