

Ian Dewancker

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Experience

Kindred Inc.

Toronto, ON, Canada

Senior Machine Learning Researcher

May 2018 – Present

Lead research and deployment of fully convolutional network (pytorch) for robust, interpretable, grasped item counting
Lead design and development of A/B testing framework comparing all KPIs on production robot fleet
Researched using Unity3D to simulate multi-perspective images of grasped items for training data augmentation
Researched unsupervised representation learning with variational autoencoders (pytorch) for grasp analysis

Uber Advanced Technologies Group

Pittsburgh, PA, USA

Machine Learning Engineer

Jan 2017 – April 2018

Lead development and deployment of real-time AV-to-actor yield resolution predictor
Lead development of trajectory scoring module for both real-time and offline analysis of actor trajectory predictions
Contributed to converting legacy rule-based goal prediction system to learned approach
Contributed to video diff tool used for visually comparing AV behaviors with respect to software changes

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

Education

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

Sequential Preference-Based Optimization : NeurIPS 2017 Bayesian Deep Learning Workshop

Bayesian Optimization for Machine Learning : A Practical Guidebook

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

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

Interactive Pref. Learning of Utilities for Multi-Objective Optimization : NeurIPS 2016 FILM Workshop

Other Projects

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)