

# Nolan Dey

Aspiring Machine Learning Researcher

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## SKILLS

**Machine Learning:** Python, SKLearn, TensorFlow, Keras, PyTorch, Matplotlib, NumPy, Pandas, D3, MATLAB

**Data Engineering:** GCP, AWS, multiprocessing, Docker, Kafka, Terraform, PostgreSQL, CoreML, Linux, Git

## EXPERIENCE

**Engineering Capstone Project – Team Member** (Waterloo, Canada) Sep. 2018 - Present

- Developing a method to adjust the diversity of music recommendations from collaborative filtering systems based on the inferred musical personality of users

**Machine Learning Research Intern – Mind Foundry** (Oxford, UK) Jun. 2018 - Aug. 2018

- Worked under Prof. Stephen Roberts to develop a general method of predicting the training time and memory usage of machine learning algorithms given a data set and hyperparameters
- Utilized SKLearn, NumPy, Pandas, Matplotlib, Google Cloud Platform, and LaTeX

**Machine Learning & Web Intern – Apple** (Cupertino, USA) Sep. 2017 - Dec. 2017

- Identified and automated a costly labelling process with image classifier deployed on MacOS
- Leveraged SKLearn, MATLAB, NumPy, Pandas, Turi Create, and CoreML in image classifier
- Created a scheduling application with Ember, Rails, and D3 which improved internal workflows

**Data Science Intern – Capital One** (Kitchener, Canada) Jan. 2017 - Apr. 2017

- Developed and deployed a distributed event data pipeline that processed 480 MB/s and saved \$200k/year
- Leveraged Python, Scala, Docker, Terraform, Ansible, AWS, Kafka, Snowplow, and PostgreSQL in pipeline
- Performed error analysis on a production model and deployed a fix which reduced prediction error by 21.4%

**Full-Stack Developer Intern – Parabol** (Remote) Sep. 2016 - Dec. 2016

- Remotely contributed to open-source web-app using Node, React, Redux, RethinkDB, GraphQL

**Software Engineering Intern – Connected Lab** (Toronto, Canada) May 2016 - Aug. 2016

- Developed microservices using Node, React, MongoDB, CloudFoundry, and pair programming
- Worked on iOS app enabling users to stream music to multiple speakers via wifi or bluetooth

**iOS Developer Intern – Kik** (Waterloo, Canada) Sep. 2015 - Dec. 2015

- Wrote major social sharing feature in Objective-C for an app with over 200M users

**Quality Assurance Intern – Kik** (Waterloo, Canada) Jan. 2015 - Apr. 2015

- Rigorously tested new features, conducted usability testing, and worked with developers to find issues

## EDUCATION

**Systems Design Engineering (BASc) – University of Waterloo** Sep. 2014 - Apr. 2019

**Relevant Courses:** Machine Intelligence, Applied Artificial Intelligence, Image Processing, Optimization

**Deep Learning Specialization – deeplearning.ai (Coursera)** Apr. 2018

**Courses:** Neural Networks and Deep Learning, Improving Deep Neural Networks, Structuring Machine Learning Projects, Convolutional Neural Networks, and Sequence Models

**Machine Learning – Stanford University (Coursera)** Apr. 2017