

# Aditya Thakkar

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## Skills

### Coursework

Machine Learning, Artificial Intelligence for Robotics, Statistics, Data Structures & Algorithms

### Languages

Python, SQL, MATLAB/Simulink, Java, C, C++, HTML/CSS, JavaScript, R, Assembly

### Technologies

Keras, Scikit-Learn, Tensorflow, Hadoop, Docker, NLTK, CUDA, Node, Solidworks

## Experience

### Data Science Intern

Jan – Apr 2018

#### Manulife

Toronto, ON

- Implementing fraud classification and natural language processing models using Python (Tensorflow, NLTK, etc) and SQL
- Using graph analytics methods for community clustering and centrality identification with Networkx and Graph-Tool
- Running models on distributed computing clusters using Hadoop and Spark

### Information Systems Developer Intern

Sept – Dec 2017

#### Manulife

Kitchener, ON

- Developed front end features for Manulife.ca and Adobe Experience Manager (Java, JavaScript, HTML/CSS, XML)
- Built app to track insurance payments for workers in the gig economy with a team of other interns
- Created filters on Contact Us forms which stop over 100,000 spam submissions per day

### Research Student (Surgical Robotics)

May – Aug 2016

#### Hospital for Sick Children (SickKids) - CIGITI Lab

Toronto, ON

- Developed probabilistic path planning algorithm (Kalman filter) and workspace simulation using MATLAB & Simulink
- Solved inverse kinematics problem for a 6 DOF robotic arm with MATLAB using Jacobian method
- Worked with microcontrollers and motor drivers to control motors and integrated feedback sensors

### Quality Assurance Analyst Co-op

May - Aug 2015

#### PointClickCare

Mississauga, ON

- Wrote automated scripts to thoroughly test web application scenarios in Java, JavaScript, and SQL with Selenium
- Performed stress, unit and regression testing for two development teams

## Relevant Projects

### Heart Disease Prediction with Random Forest Classifier | *Github Code* - [goo.gl/AJw4pX](https://goo.gl/AJw4pX)

- Predicted blood vessel narrowing due to heart disease, resulted in 83% accuracy (Python, Scikit Learn)

### Tensorflow Self Driving Car Image Classification Engine | *Github Code* - [goo.gl/oTQQiq](https://goo.gl/oTQQiq)

- Classifies images into categories of common objects encountered by a self driving car on the road (Python, Tensorflow)

## Education

### McMaster University

Expected May 2019

- Bachelor of Engineering (Co-op) – Electrical Engineering Major | Biomedical Engineering Minor
- Awards: Dean's Honour List, McMaster Entrance Award

## Extracurriculars

### President - Bioengineering At McMaster Society (BEAMS) - [beamsociety.ca](https://beamsociety.ca)

Mar 2016 – April 2017

- Led a team of 15 executives to double student attendance at all events from past years