

# Aditya Thakkar

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## Skills

### Coursework

Data Structures & Algorithms, Software Entrepreneurship, Digital Signal Processing, Machine Learning, Advanced Statistics

### Languages

Python, Java, JavaScript, HTML/CSS, SQL, MATLAB, C++, C

### Technologies

Node, Pandas, Django, D3, Docker, Simulink, Scikit-Learn, Keras, Tensorflow

## Experience

### Quantitative Research Associate Intern

May – Aug 2018

CIBC Asset Management

Toronto, ON

- Managed and built stock correlation network product using Django, D3.js, Pandas and SQL
- Wrote dynamic, recursive algorithms to detect correlated clusters within various markets and portfolios
- Presented product to users (equity analysts & portfolio managers) and built features based on feedback

### Data Science Intern

Jan – Apr 2018

Manulife Financial

Toronto, ON

- Wrote Bayesian network for fraudulent transaction detection with Python, improving accuracy by 22%
- Built a dashboard using D3.js, Node.js and SQL to visualize fraud rings within transaction data
- Brought data quality testing & monitoring project to from conception to production

### Information Systems Developer Intern

Sept – Dec 2017

Manulife Financial

Kitchener, ON

- Developed front end features for consumer facing Manulife websites (Java, JavaScript, HTML/CSS)
- 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

CIGITI Lab at the Hospital for Sick Children (SickKids)

Toronto, ON

- Wrote robotic 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

### Quality Assurance Analyst Co-op

May – Aug 2015

PointClickCare

Mississauga, ON

- Developed document generation functionalities using Java, HTML/CSS and JavaScript
- Wrote test scripts for web app use cases for two software development teams in Java using Selenium

## Projects

Heart Disease Prediction with Random Forest Classifier | [Github - goo.gl/AJw4pX](https://github.com/adityathakkar/Heart-Disease-Prediction)

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

TED Talk Topic Modelling | [Github - goo.gl/oTQQiq](https://github.com/adityathakkar/TED-Talk-Topic-Modelling)

- Extracted key words and topics from TED talk transcripts using document clustering & more (Pandas, NLTK)

## Education

McMaster University

Expected April 2019

- Electrical & Biomedical Engineering - Bachelor of Engineering Co-op
- Awards: Dean's Honour List, McMaster Entrance Award

## Leadership

President - Bioengineering At McMaster Society (BEAMS)

Mar 2016 – April 2017

- Led a team of 15 executives to double student attendance at all events from past years ([beamsociety.ca](http://beamsociety.ca))