

# Mitchell Falkow

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## Education

### Rensselaer Polytechnic Institute

MS IN COMPUTER SCIENCE, BS IN COMPUTER SCIENCE & MATHEMATICS

Troy, NY

2017 – 2021

- GPA: 3.79
- Concentrations in Artificial Intelligence and Data Science
- Relevant Coursework: Machine Learning, Natural Language Processing, Data Mathematics, Computational Optimization, Graph Theory

## Work Experience

### Royal Bank of Canada

AMPLIFY DATA ANALYST

Jersey City, NJ

Jun 2020 – Present

- Designing a comprehensive solution for enhancing the quality of incident resolution data and increasing support team efficiency
- Developing a microservice architecture for recommending potential resolutions by leveraging technologies such as voice transcription, keyword extraction, and intent classification
- Implementing a Python (Flask) microservice which utilizes NLP techniques like keyword extraction and intent classification in order to retrieve related incidents' solutions from an Elasticsearch database containing incident information

### Royal Bank of Canada

TECHNOLOGY INFRASTRUCTURE INTERN

Jersey City, NJ

Jun 2019 – Aug 2019

- Designed a web application for monitoring internal RBC services' status in real-time, and streamlining the process of identifying the causes of service outages in a complex service ecosystem
- Implemented with full-stack technologies, including React.js frontend, Java (Spring Boot) REST API backend, and MySQL
- Co-ran an internal workshop providing an introduction to machine learning and data analysis

### The MITRE Corporation

SOFTWARE ENGINEERING INTERN

Bedford, MA

May 2018 – Aug 2018

- Prototyped a DevOps dashboard for visualizing security requirements for U.S. Airforce software development teams
- Developed two Java (Spring Boot) microservices and a Vue.js web-client in a multi-repository microservice architecture

## Research Experience

### Tetherless World Constellation

GRADUATE RESEARCHER

Troy, NY

Jan 2020 – Present

- Exploring the use of domain-specific knowledge graph entities for building OWL structures that represent attribute-based policies
- Developing a domain-agnostic policy tool in support of Master's thesis (📄 [hansidm/policy-tool](https://github.com/hansidm/policy-tool))

## Technical Skills

### Languages:

Python, JavaScript, Java, SQL, NoSQL (Elasticsearch, MongoDB)

### Python Modules:

NumPy, SciPy, scikit-learn, pandas, Flask, Keras/Tensorflow, rdflib

### JavaScript Frameworks:

React.js, Material-UI, Node.js, Express.js, Vue

### Java Frameworks:

Spring Boot, Hibernate, Lombok

## Extracurriculars

### coding&&community

VOLUNTEER INSTRUCTOR

Troy, NY

Sep 2018 – Present

- Leading weekly introductory Python, Arduino, and web development lessons for local 6th-9th graders
- Volunteering for multiple outreach programs throughout year, including hackathon-style events

### Shorin-ryu Shidokan Karate

3RD DEGREE BLACKBELT, VOLUNTEER INSTRUCTOR

Mahwah, NJ

Jan 2008 – Present

- Instructing traditional Okinawan karate classes for children and adults