

# Mitchell Falkow

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## Education

### Rensselaer Polytechnic Institute

M.S. IN COMPUTER SCIENCE | B.S. IN COMPUTER SCIENCE AND MATHEMATICS

Troy, NY  
Aug 2017 – May 2021

- Concentrations in Artificial Intelligence, Data Science, and Operations Research
- GPA: 3.79
- Relevant Coursework:
  - Machine Learning, Natural Language Processing, Graph Theory, Operating Systems, Programming Languages, Data Structures, Algorithms, Principles of Software, Probability Theory, Operations Research (Linear Programming), Computational Optimization, Data Mathematics, Linear Algebra, Multivar. Calculus

## Work Experience

### Royal Bank of Canada

TECHNOLOGY INFRASTRUCTURE INTERN

Jersey City, NJ  
Jun 2019 – Aug 2019

- Designed and implemented a dashboard for monitoring internal RBC services' statuses in real-time, increasing transparency, and streamlining the process of identifying the cause of a service outage
- Constructed using full-stack technologies: React frontend with a Java Spring backend and REST API; Hibernate and MySQL database for persistence
- 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

### Smartling, Inc.

PRODUCT TEAM INTERN

New York, NY  
Jul 2016 – Aug 2016

- Created a website for demonstrating Smartling's translation technology
- Front-end built in HTML/CSS and Javascript; RESTful backend consisting of Node.js and Express.js

## Research

### Tetherless World Constellation

GRADUATE RESEARCHER

Troy, NY  
Jan 2020 – Present

- Researching the application of domain-specific knowledge graph entities for constructing OWL structures that represent attribute-based policies
- Developing a domain-agnostic policy tool in support of Master's thesis

## Technical Skills

### Languages:

Python, Java, Javascript, R, C++, SQL/MySQL

### Frameworks/Libraries:

SciPy, numpy, pandas, Java Spring, Hibernate, React, Vue.js, MongoDB, Node.js, Material UI/Bootstrap

### Concepts:

Machine Learning, Natural Language Processing, RESTful Architectures, Microservice Architectures

## 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

- Instructing traditional Okinawan karate classes for children and adults

*Mahwah, NJ  
Jan 2008 – Present*