# Mihir Chakradeo

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## EDUCATION

- **Master of Science – Computer Science (Data Science Track)** **Expected Graduation: December 2018**
  SUNY Stony Brook University GPA: 3.5
  - Courses: Machine Learning, Convex Optimization, Probability and Statistics, NLP, Computer Vision
- **Bachelor of Engineering – Computer Engineering** **Graduated May 2017**
  University of Pune, India GPA: 3.78

## EXPERIENCE

- **Software Engineering Intern** May 2018 – August 2018
  **Zuora Inc.**
  - Designed, developed, and deployed a Rails Middleware for collecting application metrics like response time, database time, number of resque workers, etc.
  - Wrote queries in Grafana for setting up alerts for application failures and anomalies
  - Wrote Continuous Queries in InfluxDB to automatically condense old data beyond a retention period for reducing space used
  - **Technologies: Ruby, Rails, Kubernetes, Prometheus, Telegraf, InfluxDB, Chronograf, Grafana**
- **Graduate Student Researcher**
  **Stony Brook University, NLP lab** January 2018 – Present
  - Cutting down search results for clinical trials using Natural Language Processing
  - **Technologies: Python, pandas, numpy, tensorflow**

## TECHNICAL SKILLS

- **Languages**: Python, C++, SQL, MATLAB, Ruby
- **Libraries**: NumPy, Pandas, Matplotlib, Sklearn, Tensorflow, PyTorch

## PROJECTS

- **ADMM Optimization algorithm in PyTorch** March 2018 – April 2018
  - Implemented parallelized "Alternating Direction Method of Multipliers" Optimization algorithm
  - Tested against sklearn's LASSO solver on the diabetes dataset, achieved an average speed up of 1.18
  - **Technologies: Python, PyTorch, numpy, matplotlib**
- **Human Action Detection using Deep Learning (CNN)** February 2018 – February 2018
  - Wrote a Convolutional Neural Network in PyTorch for classifying images and videos of human actions. Used the UCF101 action recognition dataset
  - **Technologies: Python, pandas, numpy, PyTorch, matplotlib**
- **Machine Learning from Scratch** February 2018 – April 2018
  - Wrote a Linear Regression with Lasso Regularization algorithm with coordinate descent optimizer and tested it out on a toy dataset from a Gaussian Distribution, and on the Kaggle Wine Dataset (in class - top 5%). **Technologies: Python, pandas, numpy, scipy, matplotlib**
  - Implemented Single and Multiclass Support Vector Machine with Stochastic Gradient Descent optimizer and tested it on the UCF101 action recognition dataset. **Technologies: MATLAB**
- **Captcha as a Graphical Password (CaRP)** October 2016 – March 2017
  - Worked on a Government sponsored project in Cyber Security and Machine Learning for creating an intuitive, dynamic password scheme to protect against bruteforce and shoulder surfing
  - **"Survey on Various CaRP Techniques"** published in an International Journal **(JETIR ISSN-2349-5162**)
  - **Technologies: Python- Flask, tensorflow, HTML, CSS, JavaScript, sklearn, numpy**
- **Google Firebase AppFest Hackathon** 24th June 2017
  - Built an android app for detecting skin cancer using a Dermatoscope. Secured **second place**.
  - **Technologies: Android, Google's Inception Engine, Firebase**