

# MIHIR CHAKRADEO

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## EDUCATION

- **Master of Science – Computer Science** **Expected Graduation: December 2018**  
SUNY Stony Brook University
  - Member of NLP Lab
    - Working on cutting down search results of relevant clinical trials using NLP
    - Advisor – Prof. Niranjana Balasubramanian
  - Courses: Machine Learning, Convex Optimization, Probability and Statistics, Advanced Project
- **Bachelor of Engineering – Computer Engineering** **Graduated May 2017**  
University of Pune, India **GPA 3.78**

## TECHNICAL SKILLS

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

## PROJECTS

- **“ADMM Optimization algorithm in PyTorch”** **March 2018 – Ongoing**
  - Implemented the “Alternating Direction Method of Multipliers” Optimization algorithm in PyTorch. It is an out of the box algorithm which is very useful for solving non-differentiable objective functions (especially for deep learning)
  - **Technologies:** Python, PyTorch, numpy
- **“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 UFC101 action recognition dataset
  - **Technologies:** Python, pandas, numpy, PyTorch, matplotlib
- **“LASSO Regression on Kaggle Wine Dataset”** **February 2018 – February 2018**
  - Wrote a Linear Regression with Lasso Regularization algorithm from scratch 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
- **“DeepMath- Deep Sequence Models for Premise Selection”** **November 2017 – December 2017**
  - Contributed to the *DeepMath*’s github repo as a course project for Computing with Logic
  - The focus of the project was to accelerate automated theorem proving using deep learning
  - Contributions: Verified the results for 1D CNN-RNN, 1D CNN-GRU, and 1D CNN-Encoder Decoder
  - **Technologies:** Python, tensorflow, keras, numpy
- **“Captcha as a Graphical Password (CaRP)”** **October 2016 – March 2017**
  - Worked on a Government sponsored senior year group project under the domain of Cyber Security and Machine Learning
  - Goals: To provide a safe, intuitive, dynamic password scheme to protect against brute force 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

## Hackathons

- **“Google Firebase AppFest Hackathon”** **24<sup>th</sup> June 2017**
  - Built an android app for detecting skin cancer using android phone and a Dermatoscope
  - Our app was selected in the **top 5** projects
  - **Technologies:** Android, Google’s Inception, Firebase
- **“Google Developer Group Hackathon”** **24<sup>th</sup> January 2016**
  - Built an android prototype for rating food joints near Colleges. Secured **1<sup>st</sup> place**
  - **Technologies:** Android, MySQL