

Nischal Mahaveer Chand

Boston, MA | nischal.bhatewara@gmail.com | (857) 277-9145
GitHub: DarkestFloyd | LinkedIn: nischalmc | Medium: @darkestfloyd
Available: October 2019

EDUCATION

NORTHEASTERN UNIVERSITY, Boston, MA

College of Computer and Information Science, GPA: 3.76/4.0

Sept 2017 - present

Candidate for Master of Science in Data Science

Expected graduation: August 2019

Related Courses: Supervised Machine Learning, Unsupervised Machine Learning and Data Mining,
Information Visualization, Natural Language Processing, Statistics for Bioinformatics, Algorithms

Teaching assistant positions: DS5110 (Spring 2019) and CS6220 (Summer 2019)

ALLIANCE UNIVERSITY, Bengaluru, India

College of Engineering and Design, CGPA: 3.4/4.0

Aug 2013 - June 2017

Bachelor of Technology in Computer Science Engineering

Activities: Coordinator of CodeWars, Member of DevMetric, Member of Linux Club

TECHNICAL KNOWLEDGE

Languages:	R, Python, Java, C/C++, SQL
Python Related:	numpy, pandas, matplotlib, sklearn, scipy, TensorFlow, XGBoost, PyTorch, Keras, NLTK
R Related:	tidyverse, caret, shiny, kableExtra, r2d3
Tools and IDEs:	git, Docker, flask, Weka Explorer, RStudio, Jupyter Lab, IPython Notebook, Tableau

WORK EXPERIENCE

Marcus Institute for Aging Research, Hebrew SeniorLife, Roslindale, MA

July 2018 - Dec 2018

Co-op Student/Junior Data Scientist

- *AD Supplement:* Performed regression analysis in R on high-dimensional data to find links between cerebrovascular mechanisms and Alzheimer's related dementia. Actively communicated results and findings to senior researchers.
- *Smartphone project:* Migrated existing data processing pipeline from Matlab to R. New pipeline responsible for fetching sensor data from central servers, processing data and generating metadata based on walk analysis using signal processing techniques, storing data and metadata on local MySQL server, and generating dynamic patient assessment reports.
- *shinyMRI:* Created a R "Shiny" module to visualize and dive-into 3D and 4D MRI imaging data within a web-browser.

ACADEMIC PROJECTS

Dynamic visualization of mass spectrometry imaging experiments in R

May 2019 - current

- On-going project under Dr. Kylie Bemis (author of "Cardinal" package) to enable dynamic visualization of MSI experiments and analysis results within *Cardinal* using R "Shiny" dashboards and D3.js.

MURA - Bone X-ray image classification and visualization project

Jan 2019 - Apr 2019

- Trained hierarchical CNN model to classify X-ray images as normal or abnormal using PyTorch and torchvision.
- Created dynamic visualization to show activation mapping using GradCAM technique to see what our model is seeing to make a prediction, and to visualize the change in region of focus over training iteration using D3.js and Javascript.
- Created a Python rest API service using Flask to provide real-time prediction and activation maps for uploaded images.
- Deployed models and visualization to Amazon EC2 instance and hosted website for users to interact with.

NL2code - Natural Language to Python code generator

Jan - Apr 2018

- Tested and trained neural machine translation models for general purpose Python code generation in Python using Theano.
- Improvement in BLUE score over base (from 73.2 to 74.3) by augmenting semantic information to feature embedding.

Flashlight - Property Assessment Visualization for the City of Boston

Oct - Dec 2017

- Created R Shiny Application that helps users visualize various aspects of property assessment for the city of Boston, using R for data visualization and interactive dashboard, along with Python for data cleaning and data transformation.

Movie Recommendation System

Feb - June 2017

- Implemented a Recurrent Neural Network using TensorFlow in Python to recommend movies to a user. By analysing the sequence of movies reviewed, we were able to achieve high scores both in accuracy and peer review.

HONORS AND ACHIEVEMENTS

- Presented *MURA visualization tool* at The Northeastern University Visualization Consortium. Apr 2019
- Honorable mention for *shinyMRI* in RStudio's first Shiny contest. Apr 2019
- Graduate speaker for TechTalks at Grad TechDay, Khoury College. Mar 2019
- Coordinated and organized CodeWars, a 24-hour hackathon as part of university fest at Alliance University. Oct 2015