

SHIVANI NAIK

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EDUCATION

Master of Science, Data Analytics Engineering

Northeastern University, Seattle, WA

Expected May 2023

GPA 4.0/4.0

Graduate Teaching Assistant, Foundation of Data Analytics

Master of Technology

International Institute of Information Technology, Bangalore, India

Aug 2016 - Jul 2018

GPA 3.91/4.0 Dean's List for all years

Bachelor of Engineering

Savitribai Phule Pune University (PICT Pune), Pune, India

Aug 2011 - Jun 2015

GPA 9.05/10 First Class with Distinction

EXPERIENCE

Data Scientist

Aug 2018 - May 2021

Walmart Labs, Bangalore, India

- *Fresh Produce Quality Control with Machine Vision*: Detected and classified defects and their severities in fresh produce images using Convolutional Neural Network (CNN), Object Detection, Transfer Learning and Fine-tuning
- Introduced semi-automation that resulted in \$8M - \$10M annual savings and reduced ~50% QC processing time
- Utilized latest models (EfficientNet) and training strategies to increase classification accuracy by ~16%
- Demonstrated customer-centricity by collaborating with business and presenting modeling efforts biweekly
- *Customer Review Analysis with Topic Modeling*: Performed Latent Dirichlet Allocation (LDA) analysis of ~90K customer reviews for online grocery shopping to identify top 30-40 problems which was used to retain customers

Data Science Intern

Jan 2018 - Jun 2018

Walmart Labs, Bangalore, India

- *Shrinkage Prevention during Self-Checkout*: Verified contents being scanned from self-checkout camera video feed to prevent shrinkage using object detection (Faster-RCNN) which resulted in 30% shrinkage reduction
- *Automated Fashion with Generative Adversarial Network (GAN)*: Created new fashion designs from existing apparel images dataset (~20K) using a Generative Adversarial Network for internal hackathon

PATENT

"System and method for produce detection and classification" Patent filed with USPTO ([US20200034962A1](https://www.uspto.gov/patents/publications/US20200034962A1))

SKILLS

- *Languages and Database* Python, R, Java, SQL Server, MySQL
- *Libraries and Tools* Pandas, Numpy, Matplotlib, scikit-learn, Keras, OpenCV, Tensorflow, Pytorch, Seaborn, tidyverse, ggplot2, Tableau, Git, Jupyter Notebook
- *Technical Skills and Algorithms* Machine Learning, Deep Learning, Computer Vision, Data Visualization, Data Analytics, ER Modeling, Convolutional Neural Network, GAN, DBMS, Regression, Clustering, Natural Language Processing, Data Mining, Statistics, Hypothesis testing, A/B testing, Time Series Analysis, Random Forests

ADDITIONAL PROJECTS

- *Hand Gesture Recognition System (Amazon Campus Mentorship Series)*: Built a system to recognise American Sign Language from video and generate a transcript using OpenCV, SIFT and machine learning classifiers
- *Recipe Database Management System*: Designed MS SQL database of recipes, ingredients, store inventory and user orders with ER modeling with 17+ entities and visualization reports with Tableau
- *Smart Fire Evacuation System (Internet of Things)*: System detected fire (sensors, Raspberry Pi) with sensor fusion and used WiFi positioning system to determine user location and recommend nearest safe exit using Android app
- *Music Recommendation System*: Recommended new songs based on similar users and song profiles of 110K users using clustering and collaborative filtering

ADDITIONAL INFORMATION

- **Bengaluru Regional Winner** in Stanford University's Women in Data Science Datathon 2020
- Completed leadership training in **Graduate Leadership Institute, Fall 2021** program at Northeastern University