# Dhaval Popat

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## EDUCATION

**New York University**, New York, NY                                                                         **May 2019**
Master of Science in Computer Science, GPA: 3.73/4.0

**University of Mumbai**, Mumbai, India                                                                         **May 2017**
Bachelor of Engineering in Information Technology

## TECHNICAL SKILLS

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|---|---|---|
| **Programming Languages** | : | Python, Java, C#, C, MATLAB |
| **Web Technologies** | : | HTML5, CSS3, Bootstrap, Kendo UI, jQuery, JavaScript, Node.js, D3.js, AJAX, PHP, AWS |
| **Tools & Frameworks** | : | Django, ASP.NET, Entity Framework, Hadoop, Spark, Tableau, OpenCV, TensorFlow |
| **Databases** | : | MongoDB, DynamoDB, MS SQL Server, MySQL, PostgreSQL |

## PROFESSIONAL EXPERIENCE

**Zebra Technologies**, Hauppauge, NY                                                           **Jun 2018 - Aug 2018**
*Software Engineering Intern* (Technologies: C#, LINQ, SQL Server, jQuery, JavaScript, AJAX, REST API, Razor, Kendo UI)
- Upgraded legacy desktop system to a web application using ASP.NET MVC for seamlessly processing inventory orders.
- Analyzed client's requirements and implemented innovative functionalities that led to about 65% increase in user productivity.
- Improved forecasting accuracy by incorporating advanced features and designed SQL tables to efficiently support them.
- Enhanced shipping effectiveness by devising an intelligent carrier algorithm and integrating smart calendar controls.

**NYU Langone Health**, New York, NY                                                           **Feb 2018 - May 2018**
*Student Research Intern* (Technologies: TensorFlow, OpenCV, PyQt, Python)
- Developed an interactive desktop application to facilitate cognitively impaired patients with text and voice based communication.
- Fine-tuned Faster R-CNN model with Inception v2 to verify cranial placement of an experimental treatment tDCS device.

**Drishti Group**, Mumbai, India                                                                 **Jun 2017 - Aug 2017**
*Computer Vision Intern* (Technologies: OpenCV, Python, Django)
- Built a real-time surveillance system that detects and tracks people in deep sea water to prevent them from drowning.
- Trained the system with about 30,000 data samples using cascade classifiers and achieved over 85% detection accuracy.
- Integrated a module to alert lifeguards by sending them the missing person's location and tracked route.

## PROJECTS

**Music Analytics & Genre Recognition** (Big Data Analytics: PySpark, Scala, MLlib, AWS)                     **Spring 2018**
- Built data pipeline to extract song metadata from two web sources, transform and aggregate multiple h5 files into CSV files.
- Carried out data cleaning and integrated both datasets on Amazon EMR for analyzing trends over the years.
- Employed random forest classifier to recognize genre using features such as valence, acousticness, liveness, danceability, etc.

**Sense.Me – Monitoring Mental Health using Smartphone Data** (Data Science: Python, scikit-learn)            **Fall 2017**
- Explored and preprocessed sensing data gathered from accelerometer, microphone, light sensor, app usage, GPS, etc. to develop sleep model, conversation classifier and activity predictor, and coupled it with academic workload.
- Analyzed behavioral changes to interpret relationship between smartphone data and student's mental health state.
- Trained a Lasso Regression model to estimate possible level of depression and stress in students.

**X-Beats – A Smart Music Player** (Computer Vision: MATLAB, Java, MySQL) – *B.E. final year project*          **Spring 2017**
- Developed a desktop application that generates an ideal music playlist aiming to soothe the mood and maximize productivity by capturing facial expressions to predict the emotional state using Viola Jones algorithm and AdaBoost Training.
- Implemented a module to track all processes running on the system by utilizing WMIC commands.

## PUBLICATION

- A. Sen, D. Popat, H. Shah, P. Kuwor, and E. Johri: Music Playlist Generation Using Facial Expression Analysis and Task Extraction. Intelligent Communication and Computational Technologies, Lecture Notes in Networks and Systems, Springer, October 2017.

## ACTIVITIES

- Built an assistant to summarize all question specific reviews regarding a hotel at *Trivago Hackathon – New York Edition*.
- Ranked in Top 10 participants at *TopCoder Coding Contest* in New York.