AAYUSH PATIAL

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EDUCATION

- **North Carolina State University**   RALEIGH, NC
  Master of Computer Science,   GPA = 3.44/4.0   **Expected Dec 2018**
  Courses: Design and Analysis of Algorithms | Object-Oriented Design & Development | Artificial Intelligence | Software Engineering | Spatial & Temporal Data Mining | Database Management Concepts & Systems
- **University of Mumbai**   MUMBAI, INDIA
  Bachelor of Engineering,   GPA = 8.01/10   **May 2017**

SKILLS

PROGRAMMING: Python, Java, and MATLAB.
WEB DEVELOPMENT: Ruby on Rails, HTML5/CSS3, JavaScript, MySQL, PostgreSQL, MongoDB, and MariaDB.
TOOLS: Git, Anaconda, Android Studio, Heroku, Virtual Box, MATLAB & Simulink ,PyCharm, IntelliJ IDEA,& RubyMine.

ACADEMIC/OTHER PROJECTS

Multi-Label Classification using CNN*(Python, CNN, Keras)*   Spring 2018
- Designed 4 CNN model namely Resnet-50, Baseline, VGG-16, and Inception to perform multi label classification of Amazon satellite images with 17 feature labels.
- Model takes an input image, computes a score for each of the 17 features, and then uses a cutoff threshold to decide which labels to keep.

Multi-Class Geospatial Object Detection *(Python, Scikit, OpenCV, SVM)*   Spring 2018
- Designing a framework to detect specific objects from a geographical image by creating HOG of individual object images which are to be detected
- Using linear SVM for classifying and detection of objects in the image within certain range of orientation.

OCR based Smart Shopping Android App *(Java, Android, Node.js, MongoDB, Google Cloud Vision API)*   Spring 2018
- Developed android application with features of Bill Parsing and Push Notification using Google Cloud Vision API. User can scan bill and get data parsed into the application with just a touch.

Car Rental Web Application *(Ruby on Rails,HTML,CSS, Heroku and PGSQL)*   Fall 2017
- Developed a Car-Rental App with Ruby on Rails for customers to reserve a car, modify reservations, edit check in check out of car, and manage reservations.
- Made use of PostgreSQL for the server and database management and hosted the application in Heroku cloud.

Wolf Inns Hotel Management System*(SQL, MariaDB, JDBC and Java)*   Spring 2018
- Coded the Wolf Inns Hotel DBMS application with the user ability to book different category rooms in multiple hotels, check nightly rates of each room along with allowed guests and complimentary services.
- DB admins can access the hotel employee information, and customer details as well as make modifications

FIS based Autonomous Navigation System *(MATLAB)*   Spring 2017
- Developed a Fuzzy Inference System(FIS) based algorithm for simulating the Autonomous Navigation System on MATLAB giving an error of about 1-2% from the ideal path.
- Analysed the developed system against ANFIS and Neural-Networks to prove FIS as the better technique.
- ***Research Paper published on IEEE explore digital library - DOI:*** *10.1109/ICCCNT.2017.8204164*

Open Source Contribution:

NSF supported EXPERTIZA *[TDD,Ruby on Rails, MySQL,HTML, and RSpec]*   Fall 2017
- Expertiza is a classroom tool build on Ruby on Rails for group projects and peer review. We refactored assignment model of 'Expertiza' using Ruby On Rails and DRY principles for better architecture.
- Worked on UI issues and improvement of display of review page for students work.
- Added Expert review status and addition of feature of multiple expert review.

LEADERSHIP & PUBLIC SERVICE ACTIVITIES

- **General Secretary, Students' Council** of Sardar Patel Institute of Technology, Mumbai (2015-16)
- **Winner** of the Intra-College Seventh S.M. Parekh Debate competition (2015)