

# Narendra Nath Joshi

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## EDUCATION

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### CARNEGIE MELLON UNIVERSITY, SCHOOL OF COMPUTER SCIENCE

Pittsburgh, PA

*Master of Science in Intelligent Information Systems (GPA: 3.42 / 4.0)*

Graduating Dec 2017

- COURSES: Machine Learning, Language and Statistics, Machine Learning for Text Mining\*, Advanced Multimodal Machine Learning\*, Search Engines, Lean Entrepreneurship\*  
(\*in progress)

### PES INSTITUTE OF TECHNOLOGY, DEPT. OF COMPUTER SCIENCE

Bangalore, India

*Bachelor of Engineering in Computer Science (GPA: 9.29 / 10.0)*

Graduated Jun 2015

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## PROJECTS

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#### News Article Classifier

Carnegie Mellon University, Language and Statistics Course Project

- Implemented features like n-gram language model perplexity, type-token ratio, burstiness, sentence length distribution, topic modelling, Flesch-Kincaid readability tests and Jaccard similarity
- Experimented with various classification techniques such as Support Vector Machines and neural networks and achieved classification accuracy of 95.5% on test data
- TECHNOLOGIES: Python, scikit-learn, NumPy

#### Question Generation from Dialog Data

Carnegie Mellon University, Research Project

- Used Bolt English discussion forums from UPenn LDC as dataset and applied supervised techniques at named entity recognition and co-referencing and event co-referencing.
- Generated questions and answers using template-based techniques from co-references with 72.2% usage ratio
- TECHNOLOGIES: Python, Python NLTK, Stanford CoreNLP

#### Customer Care Chatbot for Mobile Phone Sales

PESIT, Natural Language Processing Course Project

- Achieved 65% precision and 71% recall using in-house data to train question-answering model using MaxEnt classifiers and Markov models.
- TECHNOLOGIES: Python, NLTK, NumPy, SciPy

#### Driver Fatigue Detection System

PESIT, Bachelor of Engineering Capstone Project

- Computer Vision based project focused on real-time video processing on face.
- Detected yawns and measured eye blink durations and frequencies with 89.3% accuracy and 97% recall. Published in [IEEE International Conference on Signal and Image Processing, China 2016](#)
- TECHNOLOGIES: Python, OpenCV, NumPy, JavaScript, HTML/CSS

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## EXPERIENCE

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### SENSARA TECHNOLOGIES

Bangalore, India

*Product Engineer*

Aug 2015 - Jul 2016

- Built [adbreaKs.in](#) with television program and ad data.
- Implemented search capabilities for [adbreaKs.in](#) and the [Sensy](#) Android app using information retrieval techniques from Wikipedia (infobox + content) and OMDb for actors, crew and titles
- TECHNOLOGIES: Python, NLTK, Django, Jinja, HTML/CSS

### INTUIT INC.

Bangalore, India

*Co-op Engineering Intern*

Jan 2015 - Jun 2015

- Worked on maintaining and testing [mint.com](#) REST APIs as part of Mint Platform team
- TECHNOLOGIES: Java, Python, Bash

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## SKILLS

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- PROGRAMMING: Python, Java, JavaScript, HTML/CSS, PHP
- DATA SCIENCE: Python scikit-learn, Stanford CoreNLP, Python NLTK, Weka ML library suite, OpenCV
- WEB AND MOBILE: Android, Django, Flask, Jinja, Node.js, AngularJS, MongoDB

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## HACKATHONS AND EXTRACURRICULAR

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- Best Capstone Project (Social Impact), PESIT 2015
- Finalist (top ten), IBM The Great Mind Challenge 2012
- Won Intuit Android Hackathon, Intuit 2014
- Finalist (top five), Ayana 2014 (PESIT annual hackathon)
- Finalist (top three), SAP Lumira Hackathon 2014
- Finalist (top two), Google India technology quiz 2015