Rohit Naik

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EDUCATION

North Carolina State University Raleigh, NC *August 2017 - May 2019 (Expected)*
Master of Computer Science ***CGPA: 4.0/4.0***

- Courses: Parallel Systems, Software Engineering, Algorithms, Internet Protocols, Foundation of Data Science.

Sardar Patel Institute of Technology Mumbai, India *July 2013 - August 2017*
Bachelor of Engineering in Computer Engineering ***CGPA: 8.73/10.0***

- **Teaching Assistant** to **Dr. Prachi Gharpure** for the subjects 'Structured Programming Approach' using C language and 'Object Oriented Programming Methodology' using Java (2015 - 2016).
- **Head of Events** – Computer Society of India - S.P.I.T. branch (tech student body), technical festival MATRIX (2016).

PROFESSIONAL EXPERIENCE

Software Engineering Intern Google Inc. Mountain View, CA *May 2018 - August 2018*

- Improved accuracy in existing system in AdMob SDK for ad view visibility calculation when overlapped by other views, by writing an efficient algorithm to traverse the entire view hierarchy and efficiently measuring visible area of ad view.
- Exceeded performance expectations of 4-5 ms for the new system for complicated hierarchies by taking < 0.01ms.

Software Engineering Intern Tata Institute of Social Sciences Mumbai, India *July 2016 - October 2016*

- Developed PHP and MySQL based backend system, enabling dynamic content retrieval in the application reducing data retrieval time from >3 seconds to around 1 second. Also integrated it in an Android app working with 4 Android developers.

Technology Analyst Intern Credit Suisse Pune, India *June 2016 - July 2016*

- Implemented 2 projects on 'Hexawise' - a test optimization tool, reducing testing costs by 20% and ensuring good coverage.

PUBLICATIONS (NON-ACADEMIC)

Machine learning - Malicious Web Content Detection Using Machine Learning *(Python, PHP, JavaScript) (2016-17)*

- Devised a module for extracting features from a webpage and its URL using Python libraries - 'BeautifulSoup' and 'urllib'.
- Used a random forest classification model for predicting class labels for web pages with a testing accuracy of 96.11%.
- Published a paper with the above title at IEEE RTEICT, May 2017, India **(DOI: 10.1109/RTEICT.2017.8256834)**.

Data Science - Skin Disease Detection *(Python, PHP, theano, Data pre-processing) (2016-17)*

- Built a skin disease image classification model using Python libraries - 'lasagne' and 'nolearn' having an 85% accuracy.
- Submitted a paper - 'An Artificial Intelligence approach for the recognition of early stages of - ECZEMA' which is accepted for publishing in the IJMEI journal indexed by Inderscience **(http://tiny.cc/ijmei-eczema)**.

PROJECTS

Parallel computing - Image processing using CUDA *(C, CUDA, Message Passing Interface) (2018)*

- Wrote a program to generate a lake configuration with pebbles and ripples using CUDA parallelization and message passing.

Parallel programming - Own version of basic MPI library *(C, Message Passing Interface, Socket Programming) (2018)*

- Built a version of MPI library with basic functions such as MPI_Init, MPI_Send, MPI_Recv, MPI_Barrier, MPI_Finalize, etc.
- Used socket programming over a cluster of high performance computing nodes for facilitating communication.

Scheduling algorithm - Personalized task scheduling bot *(Python, MongoDB, NodeJS, Google Calendar API) (2018)*

- Developed an algorithm, working in a team of 4 to generate weekly schedules based on pending tasks and dependencies between tasks, and export the schedule directly to Google Calendar.

App development - smartART *(Java, Android, Google Vision API) (2018)*

- Created an Android application during PackHacks 2018, for children in Kindergarten to learn, understand and recognize day-to-day objects better, by integrating Google Vision API and 3-D object rendering.

Big data - Friend recommendation system using movie data *(Java, Hadoop MapReduce) (2017)*

- Wrote logic for recommending similar users based on movie preferences using MapReduce Framework on IMDB movie data.

SOFTWARE SKILLS

- *Programming Languages*: Python, C, Java, R, Objective-C
- *Tools*: Git, Mercurial, Hexawise, Hadoop MapReduce, Google Cloud Platform, LaTex, MySQL, MongoDB
- *Operating Systems*: Windows, Linux, MacOS
- *Web Development Languages*: PHP, JavaScript, NodeJS, HTML, CSS, Ruby on Rails