NISARG HARESHBHAI SHAH

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EDUCATION

Northeastern University, Boston, MA
College of Computer and Information Science — January 2017- Present
Candidate for Master of Science in Computer Science – **GPA:** 3.714 — Expected graduation: May 2019
Related courses: Algorithms, Managing Software Development, Artificial Intelligence, Information Retrieval, Web Development, Large Scale Parallel Data Processing

Gujarat Technological University, Ahmedabad, GJ, India
Gandhinagar Institute of Technology
Bachelor of Engineering in Computer Engineering — June 2012- May 2016
Related courses: Object Oriented Analysis and Design, Data and File Structure, Database Management System, Systems Programming, Operating System

TECHNICAL SKILLS

Languages:	Java, Python, C, C++, Racket
Web Technologies:	Angular 4, Node.js, Express.js, JavaScript, jQuery, HTML, CSS, Bootstrap
Databases:	MongoDB, MySQL, PostgreSQL
Tools/ Frameworks:	Hadoop, Spark, Maven, JUnit 4
IDEs:	IntelliJ IDEA, Eclipse, PyCharm, WebStorm, Visual Studio

WORK EXPERIENCE

ANSYS, Inc, San Jose, CA
Intern — August 2018- December 2018
- Designed test plans and performed planned interactive testing for the newly added features to AnsysEDT software
- Optimized C++ code-base by implementing hard-disk file cache system and reduced the execution time by 48.64%
- Investigated a program crash while running automated tests, created an independent program to reproduce the error using only third-party APIs and reported the bug to the API provider

Northeastern University, Boston, MA
Graduate Teaching Assistant — September 2017- April 2018
- Reviewed code and provided feedback on design decisions, graded submissions and held office hours to help with concepts of design paradigms for a class of 90+ students

Bhaskaracharya Institute of Space Applications and Geo-informatics, Gandhinagar, GJ, India
Intern — August 2015- April 2016
- Designed UML diagrams to visualize user interactions, processes and the structure of system
- Conceptualized, designed and developed a personal finance management Android application “MyMoney” using Android Studio and Android SDK that allowed users to keep track of expenditure and calculated tax liabilities
- Awarded in top 7 among 72 projects at project fair organized by Gandhinagar Institute of Technology

ACADEMIC PROJECTS

Northeastern University, Boston, MA

Pixel Classification in High-Resolution Brain Scans — January 2018- April 2018
- Increased training set diversity by performing rotations and mirroring on the original brain scan image
- Trained a decision tree classifier and an ensemble of random forest classifiers, using Spark’s MLlib
- Achieved an accuracy of 99.57% by tuning parameters on the validation data

NUShuttle — September 2017- December 2017
- Devised a MEAN stack application to provide transit information like ride schedules, shortest route details and waiting lists and it enabled users to reserve a ride and check in; deployed on Heroku cloud platform
- Created RESTful APIs to perform CRUD operations using Node.js and MongoDB
- Secured access to APIs and Web services using Passport.js middleware

Plagiarism Checker — September 2017- December 2017
- Created a plagiarism checker in Java to detect code duplication by parsing source codes with JavaParser library and comparing the abstract syntax trees using Jaccard similarity coefficient; ranked in top 3 projects in class
- Formulated test strategies and performed unit testing using JUnit 4 framework

Search Engine — January 2017- April 2017
- Implemented BM25, TF-IDF and Lucene information retrieval models on standard CACM data collection
- Modified BM25 retrieval model to incorporate pseudo relevance feedback technique by implementing Rocchio’s algorithm; system demonstrated an improvement of 25.54% over baseline run