

# YUG DEEPAK RAJANI

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## EDUCATION

<b>Northeastern University</b> , Boston, MA	Jan 2023 - Dec 2024
<b>Khoury College of Computer Sciences</b>	GPA: 4.0 / 4.0
<b>Candidate for Master of Science in Computer Science</b>	
Relevant coursework: Program Design Paradigms, Algorithms, Database Management Systems	
<b>Dharmsinh Desai University</b> , Nadiad	Jun 2017 - May 2021
<b>Bachelor of Technology in Computer Engineering</b>	GPA: 4.0 / 4.0

## TECHNICAL SKILLS

<b>Fundamental Concepts:</b>	Design Patterns, Data Structures and Algorithms, OOP Concepts, REST APIs
<b>Programming Languages:</b>	Java, Python, C, C#, C++, JavaScript, Golang
<b>Web Technologies:</b>	Angular, NodeJS, HTML5, CSS, Bootstrap, Flutter
<b>Databases:</b>	MySQL, MongoDB, SQLite, Elastic, Firebase, Google Cloud's BigQuery
<b>Tools and Frameworks:</b>	Elasticsearch, Logstash, Kibana, Splunk, Keras, Tensorflow, NLTK, Git, Jira, Confluence, Docker

## WORK EXPERIENCE

<b>Northeastern University</b> , Boston, MA	
Graduate Teaching Assistant   <i>Database Management Systems, MySQL, Python, Java</i>	Sep 2023 - Dec 2023
<ul style="list-style-type: none"><li>Guiding a class of over 280 students in building and troubleshooting solutions with Database Management Systems (CS 5200).</li><li>Conducting regular office hours to support students in grasping concepts and providing comprehensive feedback to track progress.</li></ul>	
Graduate Research Assistant   <i>Python, Shell Scripting, Linux</i>	May 2023 - Aug 2023
<ul style="list-style-type: none"><li>Building Shell and Python scripts to facilitate experiments for 5G network performance analysis and measurements.</li><li>Coordinating and carrying out experiments to gather 5G mm wave performance data in Boston to analyze it using Python.</li></ul>	
Graduate Teaching Assistant   <i>Database Design, MySQL</i>	May 2023 - Jun 2023
<ul style="list-style-type: none"><li>Mentored a class of 160 students in developing and debugging solutions aligned with Database Design (CS 3200).</li><li>Regularly held office hours to assist students with conceptual understanding, and providing students with detailed feedback.</li></ul>	
<b>Crest Data Systems</b> , Ahmedabad, India	
Software Engineer   <i>Python (FastAPI), ELK Stack, Golang</i>	May 2021 - Oct 2022
<ul style="list-style-type: none"><li>Collaborated with cross-functional teams across 2 Business Units (Security Analytics and Automation, Product and Solutions).</li><li>Optimized Cisco SDWAN report generation feature using FastAPI async/await mechanism, enabling 2+ concurrent user operations.</li><li>Developed 10+ Elastic integrations on ELK stack for Security and Observability, including Filebeat and Metricbeat modules.</li><li>Led and mentored technological onboarding of a team of 6 new hires, in the technology of ELK and provided hands-on training.</li></ul>	
Software Engineer Intern   <i>Python (Flask), Splunk, PostgreSQL</i>	Dec 2020 - May 2021
<ul style="list-style-type: none"><li>Implemented back-end for web application to simplify and automate migration of 3 types of assets from Elasticsearch to Splunk.</li><li>Designed a Selenium script to automate verification of ingested data into visualizations thereby increasing efficiency by 30%.</li><li>Coordinated with 5+ team leads for improving performance of Pagerduty and Slack alert migration functionality.</li><li>Created RESTful APIs, performed integration and unit testing using PyTest and Selenium, achieving 10% higher test coverage.</li></ul>	

## PROJECTS

<b>Image Manipulation &amp; Enhancement</b>   <i>Java, Swing, Object Oriented Design</i>	Mar 2023 - Apr 2023
<ul style="list-style-type: none"><li>Crafted a GUI-based image editor, implementing a blend of MVC architecture, design patterns, and adherence to SOLID principles.</li><li>Tested the system extensively using Test Driven Development Methodology to ensure intended behaviour with &gt;80% test coverage.</li></ul>	
<b>Speech Recognition &amp; Voice Detection</b>   <i>Python (Django), TensorFlow (Keras), Bootstrap, JavaScript</i>	Mar 2020 - Apr 2020
<ul style="list-style-type: none"><li>Engineered a speaker identifier by extracting 40-dimensional MFCCs from speech frames using a neural network.</li><li>Brainstormed and built a Keras (TensorFlow) model using MFCC features for speech recognition and voice detection, achieving &gt;95% accuracy in speaker identification, and designed a user interface for the application providing an intuitive user experience.</li></ul>	
<b>Agriculture Information System</b>   <i>ASP.NET MVC, Entity framework, CSS, JavaScript, Bootstrap</i>	Oct 2019 - Nov 2019
<ul style="list-style-type: none"><li>Developed an ASP.NET MVC web app with Entity framework, authentication, and admin features with &lt;200ms response time.</li><li>Worked in team to incorporate CSS, JavaScript, and Bootstrap to develop engaging front end, hosted project on Azure Cloud.</li></ul>	
<b>Health Fitness Management Application</b>   <i>Angular, MongoDB, NodeJS, ExpressJS, Typescript, AJAX</i>	Oct 2019 - Nov 2019
<ul style="list-style-type: none"><li>Created a web app using MEAN Stack to track health and workouts, added features for workout, diet and trainers management.</li><li>Integrated platform connecting users with certified trainers, providing opportunities for personalized training and user engagement.</li></ul>	