

# YUG DEEPAK RAJANI

Boston, MA | [linkedin.com/in/yug-rajani](https://www.linkedin.com/in/yug-rajani) | [rajani.y@northeastern.edu](mailto:rajani.y@northeastern.edu) | [yug-rajani.github.io](https://yug-rajani.github.io) | (617) 651-7443

## EDUCATION

### Candidate for Master of Science in Computer Science

Jan 2023 - Dec 2024

Northeastern University, Boston, MA

GPA: 4.0 / 4.0

Khoury College of Computer Sciences

Relevant coursework: Program Design Paradigms, Algorithms, Database Management Systems

### Bachelor of Technology in Computer Engineering

Jun 2017 - May 2021

Dharmsinh Desai University, Nadiad

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, React, Flutter, HTML5, CSS, Bootstrap
<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

Northeastern University, Boston, MA

**Graduate Teaching Assistant** | *Database Management Systems, MySQL, Python, Java*

Sep 2023 - Dec 2023

- Guiding a class of over 280 students in building and troubleshooting solutions with Database Management Systems (CS 5200).
- Conducting regular office hours to support students in grasping concepts and providing comprehensive feedback to track progress.

**Graduate Research Assistant** | *Python, Shell Scripting, Linux*

May 2023 - Aug 2023

- Built Shell and Python scripts to facilitate experiments for 5G network performance analysis and measurements.
- Coordinated and carried out experiments to gather 5G mm wave performance data in Boston to analyze it using Python.

**Graduate Teaching Assistant** | *Database Design, MySQL*

May 2023 - Jun 2023

- Mentored a class of 160 students in developing and debugging solutions aligned with Database Design (CS 3200).
- Regularly held office hours to assist students with conceptual understanding, and providing students with detailed feedback.

Crest Data Systems, Ahmedabad, India

**Software Engineer** | *Python (FastAPI), ELK Stack, Golang*

May 2021 - Oct 2022

- Collaborated with cross-functional teams across 2 Business Units (Security Analytics and Automation, Product and Solutions).
- Optimized Cisco SDWAN report generation feature using FastAPI async/await mechanism, enabling 2+ concurrent user operations.
- Developed 10+ Elastic integrations on ELK stack for Security and Observability, including Filebeat and Metricbeat modules.
- Led and mentored technological onboarding of a team of 6 new hires, in the technology of ELK and provided hands-on training.

**Software Engineer Intern** | *Python (Flask), Splunk, PostgreSQL*

Dec 2020 - May 2021

- Implemented back-end for web application to simplify and automate migration of 3 types of assets from Elasticsearch to Splunk.
- Designed a Selenium script to automate verification of ingested data into visualizations thereby increasing efficiency by 30%.
- Coordinated with 5+ team leads for improving performance of Pagerduty and Slack alert migration functionality.
- Created RESTful APIs, performed integration and unit testing using PyTest and Selenium, achieving 10% higher test coverage.

## PROJECTS

**Image Manipulation & Enhancement** | *Java, Swing, Object Oriented Design*

Mar 2023 - Apr 2023

- Crafted a GUI-based image editor, implementing a blend of MVC architecture, design patterns, and adherence to SOLID principles.
- Tested the system extensively using Test Driven Development Methodology to ensure intended behaviour with >80% test coverage.

**Speech Recognition & Voice Detection** | *Python (Django), TensorFlow (Keras), Bootstrap, JavaScript*

Mar 2020 - Apr 2020

- Engineered a speaker identifier by extracting 40-dimensional MFCCs from speech frames using a neural network.
- Brainstormed and built a Keras (TensorFlow) model using MFCC features for speech recognition and voice detection, achieving >95% accuracy in speaker identification, and designed a user interface for the application providing an intuitive user experience.

**Agriculture Information System** | *ASP.NET MVC, Entity framework, CSS, JavaScript, Bootstrap*

Oct 2019 - Nov 2019

- Developed an ASP.NET MVC web app with Entity framework, authentication, and admin features with <200ms response time.
- Worked in team to incorporate CSS, JavaScript, and Bootstrap to develop engaging front end, hosted project on Azure Cloud.

**Health Fitness Management Application** | *Angular, MongoDB, NodeJS, ExpressJS, Typescript, AJAX*

Oct 2019 - Nov 2019

- Created a web app using MEAN Stack to track health and workouts, added features for workout, diet and trainers management.
- Integrated platform connecting users with certified trainers, providing opportunities for personalized training and user engagement.