

YUG DEEPAK RAJANI

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EDUCATION

NORTHEASTERN UNIVERSITY

Candidate for Master of Science in Computer Science

Khoury College of Computer Sciences

Boston, MA, United States

Jan 2023 - Dec 2024

GPA: 4.0 / 4.0

Relevant coursework: Program Design Paradigms, Algorithms, Database Management Systems, Cloud Computing (AWS)

DHARMSINH DESAI UNIVERSITY

Bachelor of Technology in Computer Engineering

Faculty of Technology

Nadiad, Gujarat, India

Jun 2017 - May 2021

GPA: 4.0 / 4.0

TECHNICAL SKILLS

Fundamental Concepts:	Design Patterns, Data Structures and Algorithms, Operating Systems, OOP Concepts
Programming Languages:	C, Java, Python, C#, C++, JavaScript, Golang, SQL
Web Technologies:	HTML, CSS, Bootstrap, React.js, Node.js, Express.js, GraphQL, Flask, Redux, Angular, Flutter
Databases:	MySQL, PostgreSQL, MongoDB, SQLite, Elasticsearch, Firebase, Google Cloud's BigQuery
Tools and Frameworks:	Elasticsearch, Logstash, Kibana, Splunk, Keras, Tensorflow, NLTK, AWS, Jira, Docker, Cypress

PROFESSIONAL EXPERIENCE

Northeastern University

Boston, MA, United States

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

May 2023 - Present

- Evaluating a class of over 200 students in constructing and troubleshooting solutions in **Database Design** (CS 3200) and **Database Management Systems** (CS 5200), incorporating **MySQL**, **MongoDB**, and practical applications.
- Formulating **MongoDB** assignments and defining evaluation criteria to showcase expertise in query language design.

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

May 2023 - Aug 2023

- Spearheaded collaborative **5G mm wave analysis**, improving insights by 20% through rigorous measurements.
- Co-authored forthcoming research paper, outlining **wireless networking** applications and **data analysis** techniques.

Crest Data Systems

Ahmedabad, Gujarat, India

Software Engineer | *Python (FastAPI), React, Docker, ELK Stack*

May 2021 - Oct 2022

- Collaborated within a cross-functional team, leveraging **Python** and **React** to build features for the application.
- Orchestrated the **Docker** deployment strategy, leading to a 20% increase in deployment speed of the application.
- Optimized Cisco SD-WAN report generation using **Python FastAPI** `async/await` for 2+ concurrent user actions.
- Developed 10+ integrations and Beats modules for **ELK stack**, ensuring client success in **Security** and **Observability**.
- Led and mentored technological onboarding 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 features for web app to develop the migration of 3 types of assets from **Elasticsearch** to **Splunk**.
- Automated verification of ingested data into visualizations using **Selenium**, boosting testing efficiency by 30%.
- Coordinated with 5+ team leads to develop Pagerduty and Slack alert migration functionality using **Python**.
- Created **RESTful APIs**, performed integration and unit testing using **PyTest**, achieving 10% higher test coverage.

PROJECTS

Fake Stack Overflow | *MongoDB, Express.js, React.js, Node.js, HTML, CSS, Javascript*

Oct 2023 - Dec 2023

- Created a scalable Q&A app with **React**, **Node.js**, **MongoDB**, achieving a 30% reduction in page load times.
- Implemented comprehensive **Cypress** tests, resulting in a 20% decrease in bugs, ensuring a robust user experience.

Visual Image Manipulation and Enhancement | *Java, JavaFX, Swing, Object Oriented Design*

Mar 2023 - Apr 2023

- Constructed a robust **Java** system with **Swing** UI, **SOLID** principles, design patterns, achieving 50% code mitigation.
- Tested end-to-end flow using **Test Driven Development** to ensure intended behavior with >80% test coverage.

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

Mar 2020 - Apr 2020

- Engineered a speaker identifier by extracting 40-dimensional MFCCs from speech frames using a **neural network**.
- Developed a **TensorFlow** model for speech recognition, attaining >95% accuracy, with an intuitive user interface.