

# DEEPALI NAGWADE

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## EDUCATION

### Stevens Institute of Technology

#### Master of Science, Computer Science, GPA: 3.8/4.0

Relevant Courses: Web Programming, Agile Methodology, Data Mining, Algorithms, Human Computer Interaction, Software Design and Analysis

New Jersey, USA

Sept 2022- May 2024

### Shri GS Institute of Technology and Science

#### Bachelor of Engineering, Computer Science and Engineering

Relevant Courses: Object-oriented Design, Distributed Systems, Data Structures, Systems programming, Computer Networks, Cybersecurity

Madhya Pradesh, India

Aug 2014 - May 2018

## WORK EXPERIENCE

### Stevens Institute of Technology

#### Web Development Assistant

New Jersey, USA

Nov 2022 - Present

- Optimized **SQL** queries to access records of over **100k** students and orchestrated automated email systems, boosting communication efficiency
- Collaborated with 3 cross-functional teams to implement dynamic course content on the department's website using **React.js**, improving UI
- Continuously enhanced website functionality by identifying root causes, bug fixes, testing and updating content, achieving 0 downtime

### Anuta Networks

#### Software Developer

Bengaluru, India

Jul 2021 - July 2022

- Worked on developing 3 different microservices in **Node.js** and created scalable, customer-focused APIs supporting millions of concurrent operations with minimal latency. Created user profile verification with **OAuth** integration to enhance authentication security
- Engineered a robust DevOps CI/CD pipeline using **Docker and Jenkins**, improving deployment frequency by 40% and reducing failures
- Proactively addressed **25+** potential hot issues by leveraging Agile practices like **Scrum** and **Kanban**.
- Conducted in-depth **Root Cause Analyses** for each issue, providing detailed documentation to ensure consistent resolution strategies and enhance operational stability
- Enhanced application performance by 10% with **Amazon ElastiCache** and **AWS Lambda** for serverless computing, reducing operational costs

### Infosys Ltd | Reliance Retail

#### Senior Systems Engineer

Bengaluru, India

Jun 2018 - Jul 2021

- Reengineered a monolithic platform into a **Spring Boot and React driven MVC** architecture, enhancing System Modularity
- Designed validation pipelines utilizing **Python** for data processing and comparison, achieving a 99% accuracy rate across 2M+ migrated records.
- Executed automation of maintenance tasks using **Python and Shell scripts**, accomplishing a 37% reduction in manual task handling
- Analyzed user feedback at each **SDLC** phase, leading to UI/UX features improvements; increased user engagement by 40%
- Leveraged AWS auto-scaling to optimize application resources and migrated the system from **Oracle** to **DynamoDB**, which resulted in a 20% reduction in database related delays hence improving system performance
- Lowered response times by 40% by building dashboards for monitoring production metrics using **Grafana** and **PostgreSQL**

## PROJECTS

### Efficient Search Engine | [\[GitHub\]](#) | *Data Structures, Scrapy, Python, Next.js*

Oct 2023 - Nov 2023

- Developed a search engine for academic papers using Python, Scrapy, BeautifulSoup, Elasticsearch, and MongoDB, implementing TF-IDF and BM25 algorithms for relevance ranking and inverted indexing for efficient document retrieval
- Indexed over 5000 documents, achieved an average search response time of 520 ms, and handled up to 67 queries per second

### All Football | [\[GitHub\]](#) | *React.js, Bootstrap, GraphQL, Redis, Firebase, Azure, Docker*

Mar 2023 - Apr 2023

- Engineered a high-performance FotMob app clone using React and a custom **GraphQL** backend, enabling real-time football (soccer) updates and supporting over 1000 concurrent users with seamless data integration
- Deployed the application on AWS utilizing load balancing, **auto-scaling**, achieving high availability, reliability, and maintaining a 99.5% uptime.

### Real-Australian Rainfall Prediction | [\[GitHub\]](#) | *Python, SciPy, Matplotlib, Pandas, Seaborn, NumPy*

Mar 2023 - Apr 2023

- Led a data-driven, study on Australian weather, forecasting rainfall with ML models (SVM, KNN, linear regression) and achieved 94% accuracy
- Tested and tuned hyperparameters to overcome overfitting, ensuring robust performance across 10 scenarios while leading a team of 3

### Yet Another Social Media Platform | [\[GitHub\]](#) | *Kafka, Redis, Tailwind CSS, Elasticsearch*

Nov 2022 - Dec 2022

- Designed a **MERN stack** Instagram clone, Added 2 additional features: Mood Based Content Filtering and Flag inappropriate content
- Integrated **WebSocket** for real time communications, **Apache Kafka** as messaging and **Redis** as caching hence improved 30% operation efficiency
- Performed container orchestration with **Kubernetes**, utilized MongoDB for user data and posts, and **Neo4j** for social graph relationships resulting in a 20% improvement in query performance and managing over 5,000 active user connections

## TECHNICAL SKILLS

**Languages and Framework:** Java, Python, JavaScript, Typescript, SQL, HTML5, CSS3, Node, Spring boot, Next.js, Bootstrap, Angular, Redux, ES6+  
**Databases and Cloud:** MySQL, MongoDB, Oracle, Cassandra, AWS (S3, lambda, EC2, IAM, Aurora, CloudFront, Kinesis, RDS), Microsoft Azure  
**DevOps:** Git, Docker, Terraform, CI/CD Pipelines, Jenkins, Kubernetes, IaC  
**Development Tools:** Atlassian (JIRA), Confluence, GitHub, GitLab, Excel, Bitbucket, VS Code, Postman

## CERTIFICATIONS

**AWS Certified Solution Architect (ongoing)**, Introduction to Front-End Development (**Meta**), Software Design Patterns (**Coursera**), Algorithm Toolbox (**Coursera**), Full-stack Professional Developer (**Udemy**) Bloomberg Market Concepts (**Bloomberg**)