

# BINDU MADHAVI DOKALA

Bloomington, Indiana, USA

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## EDUCATION

### Master of Science in Computer Science

Indiana University Bloomington

August 2023 - May 2025

Indiana, USA

**Coursework:** Software Engineering, Applied Algorithms, Elements of AI, Machine Learning, Database Concepts

### Bachelor of Technology in Computer Science

Gayatri Vidya Parishad College of Engineering

June 2017 - June 2021

Visakhapatnam, India

**Coursework:** Object Oriented Programming, Operating Systems, Computer Networks, Web Technologies, SQL

## EXPERIENCE

### Software Engineer

Bosch Global Software Technologies

January 2022 - July 2023

Coimbatore, India

- Collaborated with a team of 10 developers to build the **Bosch Rexroth** web app, accessible in 96 languages, and developed key features such as secure login, search, notifications, payments, and profiles.
- Developed **scalable microservices and RESTful APIs** using containerization, processing millions of concurrent requests with a 40% improvement in response time and a 25% uplift in performance.
- Spearheaded the migration from **ElasticSearch to MongoDB for Content-as-a-Service**, reducing infrastructure costs by 25% and increasing content retrieval speeds by 40%.
- Implemented a caching layer, **minimizing database queries by 50%** and halving page load times through lazy loading and code splitting.
- Managed **Spring Microservices** on Azure with Kubernetes, **achieving 99.9% uptime** and minimizing issue resolution times by half using ELK logs.

### Programmer Analyst Trainee

Cognizant Technology Solutions

October 2021 - December 2021

Chennai, India

- Teamed up with 8 developers to create an e-commerce website, boosting **user engagement by 20%** through enhanced performance and functionality.
- Led the upgrade of the **transaction processing system**, optimizing architecture and workflow, accomplishing a **40% increase in throughput** and a 20% reduction in processing time.

## SKILLS

**Languages:** Java, Python, C++, C, Go, JavaScript, HTML, CSS, TypeScript, SQL

**Front-end Technologies:** React, Angular, Bootstrap, Thymeleaf, Junit, Jquery

**Back-end and Databases:** Spring Boot, Spring MVC, Kotlin, Django, Node, REST API, PostgreSQL, MySQL, Apache

**Software:** Kubernetes, Azure, Docker, Git, Jenkins, NPM, Jira, Bitbucket, Postman, IntelliJ, VS Code, STS, Jupyter

**Miscellaneous:** Data Structures, ML, AI, AWS, DBMS, Front-end and Backend development, DevOps, Linux, Agile, SDLC

## PROJECTS

### Concert Ticket Booking System ([website](#)) | *React, Django, PostgreSQL*

- Created a concert ticket booking system featuring secure login, search, booking, payment, and user profiles, resulting in a 100% enhancement in ticket booking efficiency.
- Engineered a business management portal and chat support, resulting in a 30% increase in workflow efficiency and streamlining of operations.

### Caring Plates | *Java, Spring Boot*

- Designed a web application using Java and Spring Boot that connects restaurants with surplus food to NGOs and individuals to facilitate food donation and reduce wastage. Enabled real-time listing and claiming of food items, reducing food wastage by 40%.

### Visual Media Captioning | *Computer vision, Deep Learning, NLP, Python*

- Designed a system utilizing a Seq2Seq model with LSTM to generate captions for input images and videos, enhancing media description accuracy by 90%.
- Trained the model on a dataset of 2,000 videos and 120,000 sentences, achieving a BLEU score of 0.86 for high accuracy in description generation.