

# ADITYA MADHUSUDHAN

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Computer Science engineer with a master's degree in computer science with 2+ years of experience building scalable full-stack applications as Software Engineer across diverse domains. Eager to leverage expertise and contribute to macroscale projects in a challenging real-world problem and solutions.

## SKILLS

**Programming Languages:** JavaScript ES6, Java, Python, C#, HTML/CSS, TypeScript, JSON, JQuery, XML, Perl, C++.

**Application Frameworks:** NodeJS, React JS, React-Native, Next JS, Springboot, Spring MVC, Hibernate, Microservices, AngularJS, Git, Django, ExpressJS, FastAPI, FlaskAPI, TensorFlow, NumPy, Pandas, Docker, ASP.Net, ASP.Net Web Forms.

**Databases:** MySQL, MongoDB, DynamoDB, S3 Bucket, CosmosDB, MongoAtlas, SQL Server.

**Cloud Services:** Virtual Machines, Serverless Compute, SNS, SQS, Cloud Watch, Amplify, API Gateway, Hosting, Blob.

## WORK EXPERIENCE

**FSU ITS | Tallahassee, FL, US**

**Course Support Specialist (Web Development)**

*June 2024 – Present*

- Designed and developed educational websites and course pages using **HTML, JavaScript, UI/UX principles, and CANVAS HTML5**, and accessibility standards, enhancing website accessibility to over 85%.
- Defined **data reporting and data processing** algorithms as API services using **Python, Pandas, DataFrames, and FlaskAPI** to facilitate real-time updates and data retrieval, for business applications.

**Grassroots – GRSSL | Bengaluru, KA, IN**

**Software Engineer**

*August 2021 – April 2022*

- Architected complex customer-relationship products leveraging **Next JS, Java, SpringBoot, JavaScript, NodeJS, MySQL and MongoDB** architecture, resulting in a notable 2x increase in Business Product efficiency.
- Applied **large-scale data aggregation and processing techniques with Java and SpringBoot** packages to enhance customer retention rates and satisfaction indices for a restaurant franchise, leading to a remarkable 25% increase in dine-in.
- Optimized, diagnosing, troubleshooting, and resolving **backend Perl, shell scripts and Python** services through performance issue tuning and complex environment refactoring, resulting in a 40% reduction in data processing time.
- Executed the setup of **CI/CD** processes utilizing **Docker** for containerization on **AWS** cloud-native distributed systems, uniting **Blob storage, SQL, and Virtual Machines** to drive 20% efficiency enhancements and scalability improvements.

**Oxyease Healthcare Services pvt Ltd | Bengaluru, KA, IN**

**Software Development Intern**

*February 2021 – June 2021*

- Planned and implemented a robust medical inventory management system and delivery management processes in an agile environment using React JS, Java, SpringBoot, and MySQL, and devised API services in Java and SpringBoot to handle subscriptions and renewals for over 10 different types of products.

**Marek Adventures | Bengaluru, KA, IN**

**Software Development Intern**

*October 2020 – December 2020*

- Innovated and built a visually appealing and responsive **UI/UX front end** web site for an African touring firm using **WordPress, HTML and JS**, increased **SEO** ensuring 2x the online presence.

**Esilicon TechnoDesign Private Limited | Bengaluru, KA, IN**

**Software Development Intern**

*Feburary 2021 – June 2021*

- Processed and deployed the algorithms in **SpringBoot, Express JS RESTful API** to triggers in failing details and error logging in semiconductor machinery, provided a 20% better inventory analysis.

## SOFTWARE PROJECTS

**NH Robotics | Freelance Software Engineer | ROS, C++, Gazebo, Rviz, Python, ROS Bridge**

- Collaborated on backend communication of **ROS server and ROS bridge C++** between robot and the wireless server, also **predicted collision distance and generated maps using image streams, IoT, and LiDAR data streams**.

**Edge-Disjoint Partitioning | Research Project | Java, Maps, Shortest Path, Dijkstra**

- Implemented a novel research paper algorithm using **Java** programming paradigms to calculate shortest path in directed, weighted, and sub-graphs, to eliminate need for prior data pre-processing, enhancing computational efficiency by 40%.

## EDUCATION

**Florida State University | Tallahassee, FL, US**

Master of Scienc in Computer Science – 3.62/4

*August 2022 – May 2024*

*Courses: Advance Database Systems, Advance Operating Systems. Analytical Methods, Data Mining, Deep and Reinforcement Learning, Data Science, Network Security, Artificial Intelligence.*

**Visvesvaraya Technological University | Bengaluru, KA, IN**

Bachelor of Scienc in Computer Science and engineering

*July 2017 – July 2021*