# **Spurthy Mutturaj**

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#### **EDUCATION**

#### **Master of Science in Information Technology**

Expected Dec 23

Arizona State University, Tempe, Arizona

GPA (4.0 /4.0)

Relevant Coursework: Advanced DBMS, Data Visualization, Middleware Programming, Unix and Shell, Cloud Architecture (AWS), Advanced Operating Systems.

#### Bachelor's in Information science and Engineering

May 21

Visvesvaraya Technological University, Bangalore, India

GPA (7.9/10)

Relevant Coursework: Data structures and Algorithms, Object Oriented Concepts, Computer Networks, Machine Learning, Software Testing.

#### SKILLS

Languages: Python, HTML, CSS, SQL, JavaScript, C, C++, PHP, Adobe ColdFusion Markup Language.

Tools/Technologies/Frameworks: Tableau, Git, Flask, Bootstrap, Node.js, Jenkins, XAMPP, Flask, Docker, Kubernetes.

Database: MongoDB(NoSQL- JSON format), MySQL, CouchBase.

## **ACADEMIC PROJECTS**

## Cloud Infrastructure Design and Deployment using AWS

May 2023

- Comprehensive knowledge of cloud computing concepts and AWS global infrastructure, with a focus on virtual networking, storage solutions (S3, EBS, Glacier), and security best practices (IAM, encryption, network security),
- Configured VPCs, subnets, and routing tables for efficient virtual networking in AWS environments.
- Implemented an Application Load Balancer leveraging Elastic Load Balancing and utilized Amazon EC2 Auto Scaling to optimize application scalability and availability. Databases(RDS, DynamoDB). Converted applications to microservices.
- Deployed a diverse array of AWS services including Amazon EC2, Auto Scaling Groups, AWS Lambda, RDS, Systems Manager, CloudWatch, S3 for static website hosting, EFS for scalable file storage. Followed DevOps Principles.

#### **Online Banking Website**

Dec 2022

- Engineered the backend of an Online Banking System utilizing MVC Architecture, incorporating functionalities such as login and logout mechanisms and client server architecture.
- Employed JWT Token-based user authentication for enhanced security and protected access to the application. Utilized MongoDB for data storage and leveraged Mongoose for database queries, ensuring efficient data management.
- Designed and tested 15+ robust RESTful API for seamless CRUD operations using Postman.

### **Vaccine Management System**

Mar 2022

- Designed a schema using ORM and ER diagrams to define project entities and requirements, optimized data organization and accelerated development timeline. Formulated 5 queries for demographic analysis of vaccination and infections statistics.
- Developed a relational database system using SQL on SQL Server Management Studio to automatically allocate a vaccine to an individual based on age using 2 triggers, 2 stored procedures, and 1 user-defined functions.

## **Restaurant Recommendation System for Business and Users**

Jun 2021

- Built an application to recommend restaurants to users using Natural Language processing and Gensim.
- Used Cosine Similarity to match user profile against all the business profiles, achieving a 75% prediction accuracy.
- Stored close to 500 user and business profiles, that are created after filtering and pre-processing the dataset, in MongoDB.
- Implemented a UI using HTML, CSS, and Flask to allow users to interact with the system using a unique user-id.
- Authored and published an international research paper in IJIEEB (http://www.mecs-press.org/ijieeb/ijieeb-v13-n3/v13n3-3.html)

## PROFESSIONAL EXPERIENCE

## Arizona State University, Tempe, AZ: Web/Software Developer

Mar 2022 - Present

- Developed and maintained 100+ visually stunning web pages using HTML, CSS (Bootstrap), and WordPress CMS resulting in a 25% increase in user engagement.
- Collaborated with a 3-member team to migrate the department's 120+ page website from custom to university standard theme.
- Engineered a contact management system using CFML, JavaScript, jQuery and AJAX; Attained an 80% reduction in real-time data generation and display duration. Incorporated Agile methodology.
- Identified, eliminated, and updated unused source code across 50+ applications to optimize server storage by 5% and addressed potential security vulnerabilities. and the University uses these apps for more than 20,000 students.
- Converted jQuery UI and jqGrid to Fomantic UI and DataTables, enhancing user experience.

#### UXL Technology Academy, Bangalore, India: Technical Course Content Creator

Jun 2020 - Oct 2020

• Wrote technical content using Python and Java programs for an online coding academy used to teach K-12 education.