Spurthy Mutturaj

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EDUCATION

Master of Science in Information Technology   Jan 2022 – Dec 2023
Arizona State University, Tempe, Arizona   GPA (4.0 /4.0)
Relevant Courses: Adv. DBMS, Data Visualization, Middleware, Unix and Shell, Cloud Architecture-AWS, Adv. Operating Systems.

Bachelor of Engineering in Information Science   Aug 2017 – May 2021
Visvesvaraya Technological University, Bangalore, India   GPA (7.9 /10)
Relevant Courses: Data Structures & Algorithms, Object Oriented Programming, Computer Networks, Software Testing, Software Engineering – Agile Software Development methodologies, Models.

SKILLS

Languages: Python, C++, JavaScript, Java, Adobe ColdFusion Markup Language(CFML).
Tools/Frameworks: AWS, Tableau, Flask, Node.js, Express.js, Jenkins, Docker, Kubernetes, CI/CD.
Database: MongoDB(NoSQL), MySQL, MS SQL Server.

PROFESSIONAL EXPERIENCE

Arizona State University, Tempe, AZ: *Web/Software Developer*   Mar 2022 – Dec 2023
- **Migrated** an application based on **jqGrid** and **Select2 UI** to **DataTables** and **Fomantic** UI for enhanced **UX**.
- Identified & **fixed bugs** introduced during the migration and development process leading to a more stable release.
- Refactored the **architecture** of 50+ applications by centralizing the app administrator contact info.
- Developed a real-time **contact management system** using JS and CFML gathering data from 30+ applications.
- **Optimized** server storage by 5% by **identifying and eliminating** unused code in 50+ apps (used by 20,000+ users).
- Built and managed 100+ web pages by adding features like search capabilities, transitions, and accessibility.
- **Accomplished** an 80% surge in user engagement (Google Analytics) through consistent content updates and marketing.
  Tools: HTML5, CSS, JavaScript, CFML, jQuery, AJAX, SQL, JSON, WordPress, testing and debugging, Git.

UXL Technology Academy, Bangalore, India: *Programmer*   Jun 2020 - Oct 2020
- Wrote Python and Java programs for a coding academy teaching K-12, focusing on OOPS and programming paradigms.
- Conducted online sessions to address ide installation issues and technical doubts for a cohort of over 20 students.
  Tools: Python, Java, Microsoft office, Scratch MIT, GitHub .

ACADEMIC PROJECTS

Cloud Infrastructure Design and Deployment using AWS   May 2023
- Comprehensive knowledge of cloud computing concepts and **AWS Resources** through 10+ projects. Projects focused on servers, virtual networking (VPCs & subnets), storage solutions and security best practices using **DevOps**.
- **Hosted static** web applications, **Migrated** databases to MariaDB RDS, **IAM** Development and simulation.
- Implemented Load Balancers, Auto Scaling groups and Converted applications to microservices.
  Tools: AWS CLI, EC2, AWS Lambda, RDS, Systems Manager, CloudWatch, S3, IAM, EFS, Cloud Formation, SQS.

Online Banking Website   Dec 2022
- Engineered a **Full-Stack** Banking System using **MVC** middleware architecture and client-server for front-end and backend.
- Employed **JWT** Token-based user authentication for security and protected access to the application.
- Designed and tested 15+ robust **REST API's** for seamless CRUD operations using **Postman**.
  Tools: Software Development using JavaScript, MongoDB, Mongoose, HTML, CSS, Bootstrap, Visual Studio Code.

Vaccine Management System   Mar 2022
- Developed a relational database system to allocate a vaccine to an individual based on 3 different age groups.
- Formulated 10+ queries, **triggers**, **stored procedures**, **user-defined functions** to allocate vaccines and analyze statistics.
  Tools: SQL, SQL Server Management Studio, Relational Database, ORM and **ER diagrams.**

Restaurant Recommendation System   Jun 2021
- **Built** a personalized engine using **NLP & Gensim** to suggest restaurants to users, utilizing yelp dataset of 500+ profiles.
- Used **Cosine Similarity** to match user profile against all the business profiles, providing a score between 0 to1.
- **Published** international research paper (at IJIEEB) exploring 4 to 5 different recommendation techniques.
  (http://www.mecs-press.org/ijieeb/ijieeb-v13-n3/v13n3-3.html, https://youtube.com/@spurthym)
  Tools: Python, Flask, pymongo, MongoDB, NLTK, Machine Learning-Natural Language Processing, Topic Modelling.