Monisha Mekala

Portfolio: monishamekala.com
Github: github.com/monishamekala

Email: mvn.monisha@gmail.com
Mobile: +1-628-246-6409
AWS Certified

Education

- **San Francisco State University** August 2023 - Expected May 2025
  Master of Science - Computer Science; GPA: 3.88/4.00
  Courses: Analysis of Algorithms, Cloud Technologies, Software Engineering, Operating Systems, Machine Learning
- **Visvesvaraya Technological University** August 2018 - July 2022
  Bachelor of Science - Information Science and Engineering; GPA: 8.95/10.00
  Courses: Data Structures, Database Management Systems, UNIX/Linux, Distributed Systems, Artificial Intelligence

Accomplishments

- The Linux Foundation: Kubernetes Certified Application Developer - CKAD *(In Progress)*
- Amazon Web Services: AWS Certified Cloud Practitioner (October 2024)

Experience

- **Associated Students, San Francisco State University** December 2023 - Present
  Web Developer-IT Technician (Linux, Docker, Kubernetes, AWS EC2, RDS, IAM)
  - Devised cloud infrastructure scalability, enhancing resilience to handle 20% more traffic and 99.9% uptime for AS SFSU
  - Optimized cloud resource utilization with auto-scaling while sustaining efficiency, reducing infrastructure costs by 10%
  - Streamlined containerized CI/CD pipelines, cutting manual deployment time by 8 hours and improving release stability
  - Enhanced reliability by automating load balancing on EC2 instances, enabling the platform to support 20% more traffic
- **LTIMindtree** July 2022 - August 2023
  Senior Software Engineer (Java, C#, Selenium, JUnit, CI/CD, Jenkins, JIRA, Azure)
  - Resolved 250+ production bugs, refining test cases with cross-functional team collaboration to ensure 95% test coverage
  - Piloted a POC for ACTS tool, automating test generation, cutting manual testing by 40%, and boosting coverage by 30%
  - Delivered 100+ automated test cases for a Java .NET application, minimizing manual testing time by 60 hours per release
  - Automated integration testing on Azure pipelines, accelerating deployment cycles, and improving Agile workflows by 30%
  - Documented test insights enhancing Continuous Integration, expediting decision-making and defect resolution by 35%
- **Code13 Edutech Private Limited** April 2021 - June 2021
  Web Development Intern (PHP, HTML/CSS, PostgreSQL, AJAX)
  - Represented an 8-member team to develop a marketing website, boosting traffic by 25% and accelerating engagement
  - Integrated REST APIs and Docker containerization, ensuring technical alignment for scalable end-to-end development
  - Used Object-Oriented Programming (OOP) principles, increasing capacity to 200 concurrent users for CodaKaroYaroo

Projects

- **Student Dropout & Academic Success Prediction - Github** August 2024
  (R, Random Forest, Data Preprocessing, Feature Extraction)
  - Revamped a Random forest model using cross-validation (5 - fold) and hyperparameter tuning, gaining 83.2% accuracy
  - Evaluated model with confusion matrix metrics, achieving 94.13% sensitivity and 72% specificity for dropout prediction
- **San Francisco International Airport Passenger Traffic Visualization - Github** January 2024
  (JavaScript, D3.js, React.js, NodeJS, PostgreSQL, Prisma ORM, Vercel)
  - Analysed air passenger traffic data from DataSF containing 35.3K rows & visualized using bubble charts and time-series
  - Identified top 5 destinations and busiest airlines, improving resource allocation and operational efficiency by 25%
- **Food Ordering Web Application - Github** August 2023
  (Node.js, JavaScript, ReactJS, MySQL, API Integration, Nginx, AWS EC2, RDS, Git)
  - Led a 5-member team to develop a full-stack food ordering platform, focusing on backend, animations, and deployment
  - Maintained rigorous oversight across all stages of the Software Development Life Cycle (SDLC), reducing 30% of errors
  - Designed database schemas following ACID compliance and data normalization, improving page load speed by 40%
  - Applied data-driven techniques and code reviews, advised the team on version control, reducing Git conflicts by 75%
  - Presented responsive frontend best practices, and AI-driven development to 50+ students, earning 20 recognition points
- **Early Detection of Alzheimer's Disease with Blood Plasma** June 2021
  (Python, SciKit, Numpy, Logistic Regression, Random Forest, Neural Networks)
  - Revitalized a Bi-Recurrent Neural Network for Alzheimer's detection, achieving 92% accuracy on 13,500 ADNI records
  - Reduced features from 150 to 16 using CFS (Correlation-Based Feature Selection), boosting prediction accuracy by 15%

Skills Summary

- **Soft Skills:** Problem-Solving, Customer Service, Leadership, Communication Skills, Team Player
- **Languages & Frameworks:** C++, C#, Python, Java, Go, Flask, Django, Express, Bootstrap, Spring Boot
- **Web Technologies:** HTML/CSS, JavaScript, NodeJS, ReactJS, REST APIs, TypeScript, AngularJS, Kafka
- **DevOps Tools:** Git, Kubernetes, Docker, Jenkins (CI/CD), Terraform, Ansible, Nginx, Selenium, JUnit
- **Database:** MySQL, MongoDB, PostgreSQL, PL/SQL, Cassandra, DynamoDB
- **Cloud Platforms and Tools:** AWS (EC2, RDS), Azure, GCP, JIRA, MATLAB, Bash, Ubuntu

Publications

- **Early Detection of Alzheimer's: Modalities and Methods.** Journal of Artificial Intelligence and Capsule Networks, 4(1), 2022, pp. 69-79
- **Early Detection of Alzheimer's using Blood Plasma Proteins with Recurrent Neural Networks.** International Journal of Engineering Research in Computer Science and Engineering (IJERCSE), 9(12), ISSN: 2394-2320