Sunanda Vasanthi Tata

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EDUCATION

California State University, Fullerton   **Aug 2024- May 2026**
Master of Science in Computer Science   GPA: 3.8/4.00
Coursework: Advanced Database Management System, Machine Learning, Web Development, Software Verification and Validation
Gandhi Institute of Technology and Management   **July 2019 - May 2023**
Bachelor of Science in Computer Science   GPA: 3.6/4.00

SKILLS

Programming: JAVA, Python, JavaScript (ES5/ES6), SQL, C, HTML5, CSS, Bash
Frameworks: MVC, ExpressJS, Node.js, Angular, ReactJS, Spring Boot, MongoDB, PyTorch, scikit-learn, OpenCV, Tesseract
Software Development: Advanced Data Structures, Algorithms, object-oriented programming(OOP), Functional Programming
Web development, REST API, Microservices, Problem Solving, Mobile App Development, Technical documentation, Code
Review, Test Driven Development(TDD), SDLC, Multithreading, System Design, Software Architectural Design, API Gateway
DevOps and Cloud Tools: DevOps, AWS, EC2,S3,EKS, Cloud, GCP, Docker, Jenkins, Ansible, Kubernetes, Helm, GCP, CI/CD
Developer Tools: Git, Gitlab, Github, JIRA, Linux, Selenium, version control, kafka, Prometheus, SonarQube, JUnit, PyTest
Machine Learning & AI : Supervised & Unsupervised Learning, Deep Learning, CNN, NLP, RL, Feature Engineering, Terraform
Certifications: Cloud Engineering Track in 30 Days of GCP 2021, Digital Forensic Concepts(Infosec), Data Structures(UCSD)

EXPERIENCE

Software Development Engineer, Hitachi Digital Systems   **Sept 2023 – July 2024**

- Built robust CI/CD pipelines by consolidating config files from distributed sources like AWS S3, and provisioning environments using **AWS Lambda** and **GCP Cloud Functions**, reducing manual effort by 70%.
- Collaborated and communicated across cross-functional teams,within a 10-member Agile team to implement multithreaded logic in the core backend services, enhancing system performance and parallel processing capabilities, led to a15% gain in processing efficiency.
- Optimized legacy automation using custom Java utilities and Selenium, reducing manual tasks by 50%, and managed scalable Kubernetes clusters on **AWS EKS** and **GCP GKE with DNS**, load balancers, and auto-scaling for 99.9% uptime.
- Designed automated test pipelines using **JUnit and Selenium** covering unit, integration, and regression testing, which accelerated release cycles by 40% and ensured consistent, high-quality software delivery.

Application Engineer Intern, Hitachi Digital Systems   **Jan 2023 – Aug 2023**

- Designed and developed VoterConnect, a real-time election analytics platform using **ReactJS** and **Spring Boot**, featuring constituency-wise data and interactive dashboards. Built secure APIs, contributed to UI/UX, and participated in Agile ceremonies including daily stand-ups, sprint planning, and sprint demos and **Scrum-based workflows**.
- Architected modular backend services, documented use cases, and implemented CI/CD pipelines using Terraform and Ansible.
- Containerized apps with Docker and deployed to Kubernetes on AWS. Collaborated with senior engineers and shadowed the Hitachi Energy Project, gaining exposure to Scrum-based DevOps workflows, sprint retrospectives, and scalable deployments.

Software Engineer Intern, Phoenix Global   **May 2022 – Aug 2022**

- Developed SkillBridge, an AI-curated microlearning platform for college students using React+Rails, boosting session retention by 23%. Led a cross-functional team of 3 engineers to design and implement SkillBridge, ensuring project milestones were met on time, resulting in a 25% improvement in feature delivery speed. Demonstrated leadership by resolving technical challenges.
- Optimized the "Quick Review" module by enhancing **React** state management, reducing load time from 18s to 2.5s. Conducted A/B testing to boost topic click-through by 15%. Refactored **Ruby on Rails** backend with caching and optimized **PostgreSQL** joins, cutting query time by 70%.

PROJECTS

NLP Approach in Distributed Health Data Management *(Individual)*

- Led Development of a secure NLP application using Python, doc2vec, and word2vec with dual models for clinical normalization and semantic retention. Deployed via Flask, FastAPI, and a JWT-authentication **React.js frontend**; integrated RapidAPI and built modular APIs with Node.js, Express.js, PostgreSQL, and MongoDB. Styled UI with Tailwind CSS, boosting accuracy by 35% and speed by 40%, while ensuring GDPR compliance for sensitive clinical data.

Global Message Intent Classification *(Group)*

- Developed a multilingual sentiment classification system for real-time feedback analysis, contributing to improved customer sentiment understanding, which boosted accuracy by 86% and reduced false positives by 15%. Served predictions via Flask API and visualized trends with ReactJS + Redux, HTML/CSS, and MongoDB. As a team leader, addressed technical challenges and ensured efficient project progress.

Brain Tumor Detection System *(Group)*

- Designed a tumor detection pipeline using **VGG16**, **TensorFlow**, and **PIL**, achieving 99% accuracy by implementing data augmentation and fine-tuning techniques.Deployed the model with Flask, FastAPI, and Gunicorn, built an intuitive React.js + Tailwind CSS frontend for user interaction, and logged diagnostic results to PostgreSQL for persistent medical data storage.