DARSHAN NILESH MAHAJAN

Certified AWS Solutions Architect Associate | darshann@usc.edu | 323-205-3739 | Los Angeles, CA| linkedin.com/darshan-mahajan

WORK EXPERIENCE

ACCENTURE, Software Engineer

Nov 2022 - Aug 2025

Portfolio: https://i4mdarshan.github.io/portfolio/

- Developed and maintained a modular, **production-grade ReactJS frontend** for a global billing system handling €10M monthly revenue, improving billing accuracy and visibility across 13 international business units.
- Engineered a dynamic Contracts module UI with CSV parsing and validation logic using React Hooks, Context API, and Redux Toolkit, reducing manual onboarding errors by 40% and improving data upload efficiency.
- Implemented a secure API communication layer with Escher-authenticated REST calls to Salesforce and Oracle systems, leveraging Axios interceptors and JWT headers to ensure data integrity and compliance across upstream/downstream flows.
- Designed and optimized the **monthly invoicing and usage calendar UI**, integrating **React Query for caching and lazy loading**; improved invoice data rendering time by ~30%, enhancing the MEC (Month-End Calculation) cycle efficiency.
- Established frontend CI/CD pipelines with Docker and Jenkins, automating builds, ESLint checks, and unit testing (Jest + React Testing Library), ensuring zero regression during production deployments.
- Collaborated cross-functionally with backend and DevOps teams to align React architecture with containerized microservices.
- Implemented role-based access control (RBAC) and session management on the client-side using JWT tokens and React Router guards, ensuring secure access segregation for billing operators, admins, and auditors.

DOTMINDS, Full Stack Developer Intern

Apr 2020 - Apr 2022

- Contributed to the **development of multiple client-facing web applications** using **ReactJS**, and **Laravel**, **MySQL backend** with a primary focus on **backend architecture** and **REST API development**.
- Designed **normalized and performance-optimized MySQL schemas** for 5+ client use cases. Implemented relational constraints, indexing strategies, and query optimizations to ensure data integrity and system efficiency.
- Built and maintained a billing and automation system for an NGO managing 5,000+ members. Automated room allocation and monthly invoicing for 850+ families, significantly reducing manual administrative overhead.

EDUCATION

University of Southern California, Thomas Lord Department of Computer Science

Master of Science, Computer Science (Applied Data Science)

Aug 2025 - May 2027

• Relevant Coursework: Applied Algorithms, Software Engineering, Distributed Systems, Applied Machine Learning.

University of Mumbai

Bachelor of Technology, Electronics & Telecommunication Engg. (GPA: 3.7)

Aug 2018 - Jun 2022

• Relevant Coursework: Database Systems, Operating Systems, Digital System Design, Artificial Intelligence.

TECHNICAL SKILLS

- Programming Languages: Java, CPP, Python, PHP, JavaScript, TypeScript.
- Frameworks/Libraries: ReactJS, Redux Toolkit, Laravel, SpringBoot, TensorFlow, Scikit-learn.
- Databases: MySQL, Firebase, MongoDB, Hadoop (HDFS, MapReduce, YARN).
- Cloud & DevOps: AWS (EC2, S3, Lambda, IAM), GCP, Docker, Jenkins.

PROJECTS

High-Performance Feature Processing Service - [C++, Docker]

- Developed a C++ backend service to efficiently compute and serve complex user features for a simulated application.
- Implemented a **RESTful API interface** using a C++ framework (C++ **Rest SDK**) to handle high-volume feature requests with **sub-10ms latency.**

Customer Relationship Management (CRM) - [ReactJS, Redux Toolkit, Laravel, MySQL] - Link

• Developed a **CRM system** for 50K+ customers, implementing a **recommendation engine with collaborative filtering** and a **customer segmentation module** using K-Means clustering. These features drove personalized product suggestions, enhanced marketing targeting, and enabled proactive risk identification.

LensLoop - [ReactJS, Redux Toolkit, TypeScript, AppWrite]

• Engineered the entire user interface using TypeScript and ReactJS, leveraging TanStack Query for automatic caching, efficient parallel data fetching, and robust real-time server mutations.

Repeat Buyer Prediction for E-Commerce Promotions - [Scikit-learn, TensorFlow, Pandas, and NumPy]

- Engineered **predictive models** using **XGBoost and Logistic Regression** to estimate 6-month repeat purchase probability for over 40,000 new buyers post "Double 11" sale.
- Implemented advanced feature extraction from 6 months of user logs (clicks, add-to-cart, purchases) to increase validation AUC by 10% through behavioral sequences and demographics.