

Mridula Mahendran

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ACADEMIC QUALIFICATIONS

Northeastern University

Master of Science in Information Systems

Anna University

Bachelor of Technology in Information Technology

Boston, MA

Aug 2026

Chennai, TN

May 2023

WORK EXPERIENCE

Siemens Digital Industries Software

Software Developer Co-op

Plano, Texas

Jun. 2025 - Dec 2025

- Enhanced Totally Integrated Automation (TIA) Portal's interactive features using ReactJS and Node.js, identifying performance bottlenecks and boosting system performance by 15%, improving responsiveness and user engagement
- Designed and implemented RESTful APIs with Swagger/OpenAPI in a microservices architecture, and established CI/CD pipelines and infrastructure-as-code (IaC) for repeatable, reliable deployments, reducing configuration drift and improving maintainability
- Optimized multi-screen SCADA/HMI leveraging JavaScript and responsive CSS for dynamic UI/UX to manage real-time visualization and control of 25+ electrical parameters, boosting operational efficiency by 20% and reducing human error
- Led Agile execution end-to-end, actively participating in daily stand-ups, sprint planning, demos, retrospectives, and code reviews, ensuring high-quality, on-time delivery of production-ready features

Accenture

Advanced Application Engineering Associate

Chennai, India

Nov. 2023 - Aug 2024

- Developed and maintained a Spring Boot-based Customer Account Management microservice, enabling secure customer account creation, retrieval, and update operations through RESTful APIs
- Designed and optimized complex MySQL schemas, normalized tables, and fine-tuned queries using indexes and execution plan analysis, achieving an improvement in query performance
- Integrated OAuth2 and JWT-based authentication and authorization across microservices to enable secure, token-based access control compliant with the enterprise's security and audit standards

ACADEMIC PROJECTS

Cloud Native Web Application | AWS, Terraform, Packer, Shell Scripting, Node.js, Express.js, REST APIs, PostgreSQL

- Designed and developed a cloud-native web application using a microservices architecture with Node.js, Express.js, and PostgreSQL, deployed on AWS for scalability and high availability
- Automated end-to-end AWS infrastructure using Terraform, provisioning VPCs, EC2 instances, security groups, Application Load Balancer, Auto Scaling Groups, and Route 53 DNS, ensuring fault tolerance and elastic scaling
- Built a CI/CD pipeline using GitHub Actions, enabling automated testing, custom AMI creation with Packer, and seamless deployments, reducing manual release effort and improving deployment reliability

DataFyre | MongoDB, Express.js, React.js, Node.js, JWT, ApexCharts.js, i18n, Redux, ANT Design Framework

- Designed and developed a scalable enterprise-level synthetic data generation platform using the MERN stack, enabling API driven data customization and real-time dashboards for efficient workflows
- Implemented role-based access control, email-based authentication, and internationalization (i18n) for secure and user-friendly application functionality
- Built dynamic forms with ANT Design framework, real-time mock data previews, and integrated Bull for background task management, ensuring seamless data processing
- Enhanced analytics and tracking features using ApexCharts.js and Redux for centralized state management, providing actionable insights and streamlined development processes

Employee Dashboard | Java, Spring Boot, Hibernate, TypeScript, Angular, MySQL, Chart.js, REST APIs

- Designed a centralized system for managing employee information. Captured key data securely in a MySQL database. Enabled user-friendly input and storage of employee details using Spring Boot and Hibernate for backend data management, while Angular facilitated frontend interaction with RESTful APIs
- Implemented Chart.js to visualize department-specific statistics. Utilized REST API calls to fetch and present real-time employee data, enabling informed decision-making through intuitive charts and graphs

TECHNICAL SKILLS

- Languages:** Java, Python, C/C++, JavaScript, TypeScript, HTML, CSS (SASS, SCSS)
- SQL:** MySQL, PostgreSQL, MongoDB (NoSQL)
- Technologies/Frameworks:** ReactJS, Angular, NodeJS, ExpressJS, SpringBoot, Hibernate, Redux, Jasmine, Karma
- Developer Tools:** VS Code, Git, GitHub, GitHub Actions (CI), Postman, Bruno, Eclipse, Spring Tool Suite, Jupyter Notebook
- Cloud Technologies:** AWS (EC2, S3, RDS), Google Cloud Platform, Terraform, Packer, Shell Scripting
- Others:** Data Structures, Algorithms, Object Oriented Programming (OOPs), REST APIs