Megha Sudhakaran Nair

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PROFILE

Results-driven Software Engineer with a growth mindset and 3+ years of experience building scalable, responsive web applications. Skilled in UI development, API integration, and performance optimization. Known for strong communication, adaptability, decision-making, and leadership in cross-functional teams. Collaborative and solution-oriented, with a proven ability to translate complex requirements into impactful user experiences.

EDUCATION

Master of Science, Computer Science   08/2022 – 05/2024 │ GPA-3.83
Arizona State University
Coursework: Data Mining, Statistical Machine Learning, Artificial Intelligence, Human Computer Interaction, Software Verification Validation and Testing

Bachelor of Technology, Computer Science   08/2017 – 04/2021 │ CGPA-3.7
Cochin University of Science and Technology, Kerala
Coursework: Object Oriented Software Design, Operating System, Data Structure and Algorithms

SKILLS

Technical skills

HTML5, CSS3, Bootstrap, JavaScript, React.js, Angular, NextJS, Node.js, GraphQL, JSON Web Token, TypeScript, Python, C++, C#, Java, C, MySQL, NoSQL, RESTful APIs, trpc APIs, Prisma ORM, Git/GitHub, BitBucket, Jupyter Notebook, Anaconda, Visual Studio, Pandas, Numpy, TensorFlow, Matplotlib, OpenCV, PyTorch, AWS (S3, EC2, API Gateway), Azure, Cypress, Postman, Swagger

Tools and Methodologies

Agile methodologies, CI/CD, Microservice Architecture, Version Control, API Integration, Analytics, Project Management, Windows, macOS

PROFESSIONAL EXPERIENCE

Software Developer   06/2024 – Present │ Scottsdale, United States
BLUSVN Technologies
- Led a 3-developer team in the end-to-end architecture and development of the company's official website and app using Next.js, Material UI, and Capacitor, leveraging Figma for design and delivering a responsive and accessible experience across web and mobile platforms.
- Designed and implemented a scalable data model with Prisma and built robust tRPC API endpoints for core modules, which resulted in a significant improvement in data retrieval time and enhanced data integrity for personalized user experiences.
- Ensured API reliability and robustness by implementing comprehensive unit and integration tests with Jest, which improved code quality and reduced production bugs by 40%.
- Optimized core application performance by implementing lazy-loading, asset preloading, and a full-stack pagination solution for extensive order records, boosting Lighthouse scores by 15% and significantly improving initial load times.
- Enhanced authentication by resolving SSO issues and implementing biometric authentication with Capacitor Biometrics, improving security and streamlining user access.
- Implemented secure private and public routing with next/navigation to improve platform security, establish structured navigation, and ensure seamless user access.
- Automated weekly product pricing updates using a Python web scraper deployed to an AWS Lambda function, which ensured data accuracy and streamlined the data collection workflow.

Software Engineer Intern   08/2023 – 05/2024 │ Tempe, Arizona, United States
Interbiz Consulting
- Collaborated with clients to gather requirements for an IoT platform, delivering solutions that enhanced satisfaction.
- Optimized the **heartbeat schema** to reduce request-response frequency, improving cost efficiency and streamlining device communication.
- Implemented an aggregator schema in Cosmos DB, reducing UI fetch time by 30% and enhancing system performance.
- Developed a responsive UI in **Angular**, implementing features like scheduling, user management, and device monitoring.
- Integrated dynamic forms and time zone management for scheduling, ensuring accurate device operations and an intuitive user experience.
- Built a feature to request, store, and retrieve device log files using **blob storage**, enabling efficient downloads reducing redundant requests.

PROJECTS

Agriculture Yield Prediction App 🔗   03/2020 – 03/2021
- Designed a user-friendly app for farmers to access and analyze agricultural data, allowing them to make informed decisions for crop planning and management.
- Processed and analyzed large-scale agricultural datasets, enabling farmers to make data-driven decisions for crop planning and management, resulting in a 30% increase in crop yield.
- Implemented advanced machine learning algorithms, including random forest, linear regression, and LSTM, achieving a 15% increase in accuracy for agricultural yield prediction.
- Optimized models using PCA, clustering, correlation matrix, and hyperparameter tuning for best results.
- Conducted comprehensive testing and debugging, ensuring the app's functionality and performance across 99% of device configurations and platforms.

Credit Risk Analysis   10/2020 – 11/2020
Data Analytics intern - Wudi Datatech
- Conducted comprehensive **Exploratory Data Analysis** using **Python** to identify and visualize key credit risk factors within the customer dataset, providing a data-driven foundation for analytical models.
- Segmented the customer base by applying a **K-Nearest Neighbors clustering model**, which enabled the business to identify and target high-risk profiles with a more tailored credit strategy.
- **Developed and presented data visualizations** and analytical reports to senior management, translating complex credit risk insights into clear, actionable recommendations that guided lending decisions.