Vinoth Balaji

Associate Technical Lead - Full Stack

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Results-driven and innovative Full Stack Developer with 5.5+ years of experience in delivering cutting-edge solutions using both MEAN and Django stacks. Expert in end-to-end web application development, with strong skills in both front-end and back-end components, as well as Docker-based deployment. Proven track record in providing technical leadership, collaborating with teams, and delivering quality solutions that meet diverse client needs

Skills

- Angular (V.13)
- PostgreSQL
- HashiCorp Vault
- Node JS (Express)
- Nginx
- Microsoft AD SSO
- Python (Django)
- Highcharts
- Redis
- Mongo DB
- Docker, Docker Compose
- Websockets, JIRA, JWT

Soft Skills: Leadership, Collaboration, Problem-Solving, Time Management, Adaptability

Languages: English (Proficient), Hindi (Proficient), Tamil (Native/Bilingual), Telugu(Native/Bilingual)

Experience

Flutura Decision Sciences & Analytics. Bangalore, India (Soon to be acquired by Accenture)

Oct 2017 - Present

Associate Technical Lead - Full Stack — *Apr 2021 - Present*
Senior Programmer — *Jan 2020 - Mar 2021*

Cerebra Engineer's Workbench

EWB is a low-code/no-code platform that streamlines data analysis for engineers and analysts. The platform is specifically designed to analyze data generated by systems, equipment, and processes throughout the R&D to customer service life cycle, providing a comprehensive solution for the core engineering domain.

Tech Stack: PostgreSQL, MEAN Stack, Python(Django), Docker, Nginx, Redis, HashiCorp Vault

- Implemented Node.js with the Express framework as middleware to connect the front-end UI with the Django back-end, enabling user authentication and authorization via password and Azure AD SSO using JWT and OAuth for the EWB platform.
- Implemented performance optimizations to reduce the initial loading time of Canvas/Workbook by 70%. Leveraged techniques such as lazy-loaded components, on-demand loading, and image replacement of containers to achieve this improvement.
- Developed a custom-built logger application from scratch to obtain user behavior statistics and aid in debugging.
- Containerized the application using Docker, improving portability and streamlining deployment processes.
- Created a Template module for efficient packaging of workbooks into a single executable, enabling users to execute the entire package with one click. Users can easily customize inputs with various sources and configurations, saving time and effort in running multiple toolboxes individually.
- Collaborated with cross-functional stakeholders, including product managers and end-users, to conceptualize and design innovative features aimed at enhancing the overall value of the platform.
- Spearheaded the design, development, testing, and deployment of the highly generic and config-driven Output Engine module, enabling users to interact with visual outputs in the form of charts and tables.
- Addressed identified vulnerabilities during security audits and implemented necessary fixes to ensure the platform's security and compliance with industry standards.
- Developed a customizable set of charts and graphs for visual data analysis through the creation of the Widget module.
- Implemented real-time communication using technologies such as WebSockets and Redis to provide users with up-to-date information and notifications.

- Implemented security measures to protect sensitive data and prevent unauthorized access and session hijacking of the application.
- Implemented cutting-edge features to elevate the user experience, including customizable annotations, seamless zooming, and synchronized charts, resulting in a more intuitive and efficient data analysis process.
- Architected, developed, tested, and deployed the Aggregation Framework to visualize large datasets in a single chart, streamlining data analysis for end-users.
- Collaborated with the product team to design and develop the Packaging and Prediction module, a valuable addition to the platform. This module enables users to package and employ ML toolboxes for accurate outcome predictions with alternate data sources.
- Provided technical guidance and mentorship to junior team members on various platform modules, including conducting code reviews to ensure adherence to best practices and standards.
- Optimized the features for high performance and quick load times, ensuring smooth and seamless user experience.
- Documented the features and provided training to users and team members for their effective use and maintenance.

Sep 2018 - Dec 2019

Senior Programmer

Quality Applications

The application is developed to enhance the quality of bulk material production in a manufacturing plant. It encompasses four sub-applications - Quality Pulse, Quality Diagnostics, Quality Prognostics, and the Action Module - allowing users to track product quality and identify improvement opportunities.

Tech Stack: PostgreSQL, MEAN Stack, Python(Django), Docker, Nginx

- Successfully led the migration of applications from jQuery to the MEAN stack, improving overall performance and maintainability.
- Collaborated with UX designers to implement new features and improve UI/UX design, resulting in a more user-friendly experience.
- Spearheaded end-to-end design, development, and integration of the entire front-end application from the ground up.
- Configured the application with Django, Node, and Angular frameworks.
- Implemented a robust user authentication system for the application.
- Designed and developed a reusable Filters module for use across web pages.
- Mentored team members on technical design, debugging, and optimization of APIs to meet customer requirements.
- Developed REST APIs essential for the application.
- Conducted bi-weekly customer calls for requirements gathering.
- Collaborated with product managers, users, and the team to design new features that added value to the platform.

Programmer

Supply Chain Management

The application aims to boost competitiveness and customer satisfaction through improved inventory management, optimized portfolio management, and increased transparency on constraints. The objective is to achieve higher inventory turns and streamline inventory management processes for a more efficient operation.

Tech Stack: MSQL, Angular JS, jQuery, Python(Django), SSIS *Oct 2017 - Aug 2018*

- Conducted weekly customer calls and orchestrated monthly data loads to ensure alignment with customer requirements and maintain accurate information.
- Designed and deployed the Batch Module dashboard to visualize company performance at the batch level.
- Optimized the filter module for improved performance and quicker load times, enhancing the user experience.
- Worked on enhancing the application's responsiveness to different devices and screen sizes.
- Developed REST APIs to facilitate seamless integration of the application with external systems and assisted in troubleshooting and resolving customer-reported bugs and issues.

Education

GANADIPATHY TULSI'S JAIN ENGINEERING COLLEGE *Aug 2013 - July 2017*

- Bachelor of Engineering in Computer Science *CGPA - 8.12*

Kendriya Vidyalaya No. 1 Kalpakkam *2011 - 2013*

- Higher Secondary