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Summary

As a Senior Software Engineer with **5 years** of **full stack development** experience, I excel in building responsive and dynamic user interfaces using JavaScript frameworks/libraries (**Angular, ReactJS, VueJS**) and robust backend systems with **NodeJS**. I am proficient in **state management**, **API development**, and **database design**, with a strong focus on **performance optimization and security**. Experienced in **leading teams**, **mentoring developers**, and collaborating with stakeholders to deliver scalable and efficient solutions. Committed to continuous learning and adapting to new technologies and methodologies.

- Expertise in frontend development using **JavaScript** frameworks and libraries such as **Angular**, **ReactJS**, and **VueJS**, delivering responsive and dynamic user interfaces.
- Implemented state management solutions using **Redux**, **Vuex**, and **RxJS Subjects**, optimizing data flow and application performance.
- Designed and developed **reusable UI components and libraries**, streamlining the development process and ensuring consistency across applications.
- Optimized application performance through **code splitting**, **lazy loading**, and other best practices, improving user experience and reducing load times.
- Developed and maintained **RESTful APIs** using **NodeJS**, with **MySQL, PostgreSQL** and **MongoDB** via **Sequelize** and **Mongoose** ORMs. Implemented robust API validation techniques using middleware like **Joi** and **Express-validator**, ensuring data integrity and API reliability.
- Designed and implemented applications in a **microservice architecture** with a **Backend-for-Frontend (BFF)** layer, enhancing modularity and scalability.
- **Designed optimized database schemas** for MySQL, PostgreSQL and architected scalable NodeJS applications using microservices principles.
- Created comprehensive API documentation with **Swagger/OpenAPI** and conducted thorough API testing with **Postman** to ensure functionality and reliability across environments.
- Utilized **TypeScript** for both frontend and backend development, enhancing code quality and maintainability with strong typing.
- Implemented authentication and authorization using **JWT, SAML, OAuth2**, **RBAC,** and other industry-standard protocols, ensuring secure access to applications.
- Utilized tools like **Docker, Atlassian Bamboo**, **PCF** (Pivotal Cloud Foundry), **DigitalOcean**, **Jenkins**, **AWS EC2**, and **AWS S3** for CI/CD, manual hosting, data storage, and CDN hosting, streamlining the development workflow and ensuring efficient, automated delivery of applications.
- Applied **test-driven development** (**TDD**) and also explored behavior-driven development (**BDD**) methodologies, increasing code reliability through comprehensive unit and integration testing.
- Conducted code reviews and pair programming sessions, fostering a collaborative development environment and ensuring high-quality code.
- Worked closely with product managers, UX/UI designers, and other stakeholders to gather requirements and translate them into technical specifications and functional applications.
- Mentored junior developers, providing guidance and support to help them grow their skills and contribute effectively to the team.
- Stayed up-to-date with the latest trends and best practices in web development, continuously learning and adapting to new technologies and methodologies.

Certification

- **Fullstack Developer** - Kerala Development and Innovation Strategic Council
- **Angular Complete Course** - Udemy

Skill Summary

- **Languages:** JavaScript, TypeScript
- **Frontend:** Angular, ReactJS, VueJS, RxJS, Redux, React Router, Vuex, Bootstrap, Material Design, Ant Design, Vuetify, D3, Recharts, AmCharts

- **Backend:** NodeJS, ExpressJS, Sequalize, Joi, Express-Validator
- **Database:** MySQL, PostgreSQL, MongoDB
- **Tools:** Docker, CRA, Vue CLI, Vite, Git, Postman, Swagger, DBeaver, Bamboo, PCF, SonarQube, Digital Ocean
- **OS & IDE:** Windows, Linux, VS Code

Project Details

1. **GTM Dashboard**

The GTM Cloud Customer Operations Dashboard is a comprehensive web application developed for **Telstra, Australia's leading telecommunications company**. Designed to streamline customer operations, this system consists of a **single user interface (UI)** and **3 Backend-for-Frontend (BFF) microservices** that interact with various **upstream APIs**. This architecture ensures efficient data processing and presentation, providing a seamless experience for **Telstra's customer operations teams**, enabling them to manage and optimize services for millions of Australian customers.
Role: Senior Full Stack Developer
Responsibilities:

- Contributed to the development of both frontend and backend components
- Implemented features across the UI and 3 BFF microservices
- Designed and implemented RESTful APIs for the BFF microservices
- Integrated the system with upstream APIs
- Optimized database queries and improved overall application performance
- Ensured code quality and adherence to best practices
- Implemented logging and monitoring solutions for improved system observability
- Implemented security measures and data validation across the application
- Participated in the full software development lifecycle, including design, implementation, testing, and deployment
- Conducted code reviews and mentored junior developers
- Managed deployments and infrastructure using Bamboo and Pivotal Cloud Foundry (PCF)
- Troubleshot and resolved complex issues in production environments
- Implemented automated testing strategies, including unit and integration tests
- Participated in architecture discussions and contributed to system design decisions
- Participated in Agile ceremonies and contributed to sprint planning and estimation

Technical Details:

- **Frontend:**
  - **Vue.js** for building the user interface
  - **Vuetify** for UI components and styling
  - **Vuex** for state management
  - **Vue Router** for navigation
- **Backend:**
  - **Node.js** with **Express.js** framework for building RESTful APIs
  - **Joi** for request validation and Winston for logging in console
  - **PostgreSQL** as the primary database **with Sequelize ORM** for database interactions
- **DevOps and Infrastructure:**
  - **Pivotal Cloud Foundry (PCF)** for application deployment and management
  - **Bamboo** for continuous integration and deployment
  - **SonarQube** for code quality and security analysis
  - **Docker** for containerization
  - **Veracode** for application security testing
  - **New Relic** for application performance monitoring

2. **Pingar Content Insight**

Pingar Content Insights is an advanced data analytics tool developed as an enhancement layer for an existing Pingar solution. Built on top of the client's DiscoveryOne database, this application

serves as a dedicated search engine with enhanced capabilities for discovering and analyzing insights from the original dataset. It provides users with powerful tools to explore, visualize, and extract meaningful information from large volumes of content, enabling more informed decision-making and deeper understanding of data patterns.

Role: Frontend Developer with additional responsibilities in database design and backend support

Responsibilities:

- Gathered and analyzed customer requirements to inform development decisions
- Implemented state management using **Redux Toolkit** for efficient data flow
- Designed and developed **reusable, readable, and unit-tested React components**
- Implemented **code splitting and lazy loading** techniques to optimize application performance
- Integrated **Amcharts** for data visualization and connected it with backend APIs
- Handled **API integration using Axios** for seamless data communication
- Contributed to **database design**, ensuring optimal structure for frontend data needs
- Integrated **Microsoft AD FS UI** into the application for seamless user login
- Customized and implemented the authentication UI using legacy JavaScript, HTML, and CSS
- Assisted in troubleshooting and resolving backend issues
- Implemented **SAML authentication** for secure user access
- Collaborated with backend team to design and optimize API endpoints
- Participated in code reviews and provided constructive feedback to team members
- Implemented responsive design to ensure compatibility across various devices
- Optimized frontend performance through efficient rendering and state management
- Contributed to the development of user documentation and guides

Technical Details:

- **Frontend:**
  - **ReactJS** for building the user interface
  - **Redux Toolkit** for state management
  - **Amcharts** for data visualization
  - **Axios** for API integration
  - **Jest and React Testing Library** for unit testing
  - **Code splitting** and **lazy loading** for performance optimization
- Backend:
  - .NET framework for server-side logic
  - RESTful API design and implementation
  - **Elasticsearch** for efficient full-text search and analytics
  - **PostgreSQL** for relational data storage
- Authentication:
  - Microsoft account-based authentication, using Azure Active Directory Federation Services (AD FS)
  - SAML (Security Assertion Markup Language) protocol for secure, federated authentication
  - Integration of Microsoft AD FS UI in the application, set up on the client's server
  - Custom implementation of the authentication UI using legacy JavaScript, HTML, and CSS
- Development Practices:
  - Agile methodology with regular sprints and stand-ups
  - Version control using Git
  - Continuous Integration/Continuous Deployment (CI/CD) pipeline

3. **V-Audit**

V-Audit is an advanced software solution designed to automatically detect anomalies in live or recorded video feeds. The system utilizes AI technology to identify various scenarios such as individuals wearing helmets in ATMs, hotel employees not wearing required head coverings, or unauthorized personnel entering restricted areas. Upon detection, the system automatically

raises tickets for these anomalies. Additionally, V-Audit provides functionality for auditing users to manually raise tickets when necessary. This comprehensive approach enhances security monitoring and compliance in various environments.

Role: Front End Developer

Responsibilities:

- Contributed to the project **from its inception**, playing a key role in its development
- Participated in **system architectural design**, helping to shape the overall structure of the application
- Led UI development, deployment, and maintenance efforts
- Led the Angular framework **upgrades from version 10 to 11**, and subsequently to **version 13**, ensuring smooth transitions and leveraging new features
- Debugged both client-side and server-side issues, including Java and Python code
- Implemented data visualization features using D3.js
- Ensured responsive and accessible design using Semantic HTML and Bootstrap
- Optimized application performance and user experience
- Collaborated with backend developers to integrate frontend with Java and Django backends
- Participated in code reviews and maintained coding standards
- Assisted in troubleshooting cross-functional issues spanning the entire stack

Technical Details:

- **Frontend:**
  - **Angular** framework for building the user interface
  - **TypeScript** for type-safe JavaScript development
  - **RxJS** for reactive programming and handling asynchronous data streams
  - Bootstrap for responsive design and UI components
  - **D3.js** for advanced data visualization
  - **Semantic HTML** for improved accessibility and **SEO**
- Backend:
  - AI Backend: Custom AI service for video analysis and anomaly detection
  - API Gateway: Python Django-based service for routing and managing API requests
  - BFF (Backend for Frontend): Python Django-based service tailored for frontend needs, integrating with upstream AI backend APIs
  - Java for additional backend services
- Database:
  - MySQL for data storage and management
- Development Practices:
  - Version control Git
  - Agile methodology (implied by involvement from project inception)

4. **IOScope**

IOScope is a sophisticated software system designed to manage and monitor high-frequency I/O devices, particularly semiconductor devices such as I/O Controllers and SuperIOr. This highly data-intensive application visualizes collected data from these devices in real-time. The system integrates multiple components including an Angular frontend, a Spring Boot microservice backend, C++ upstream APIs for device communication, and a Node.js application for Wireshark network logging. IOScope handles high-frequency data collection, visualization, and analysis, making it a powerful tool for semiconductor device management and testing.

Role: Full Stack Developer (primarily focused on Frontend and Node.js)
Responsibilities:

- Participated in requirement gathering and architectural design phases

- Led the development, deployment, and maintenance of the Angular-based user interface
- Implemented user management features including authentication, authorization, and role-based access control
- Developed functionality for scanning and managing network devices, including CRUD operations
- Created controls for data collection (logging) from devices, including on/off and scheduling features
- Implemented Wireshark logging controls and data export functionality
- Designed and developed data visualization features using Dygraph for high-frequency data plotting
- Built features for device template management, including pin arrangement configurations
- Implemented system update functionality through package uploading
- Contributed to server-side bug fixing and maintenance in Spring Boot
- Created a custom Ubuntu ISO using CUBIC, restricting I/O access for security
- Developed shell scripts for automating update package creation and data validation
- Troubleshot and resolved challenges related to live plotting of high-frequency data

Technical Details:

- **Frontend:**
  - Angular v10 for building the user interface
  - TypeScript for type-safe development
  - Bootstrap for responsive design
  - Dygraph for high-performance data visualization
  - RxJS for reactive programming (implied by Angular usage)
- **Backend:**
  - Spring Boot microservice with Hibernate JPA for Java-based backend logic
  - Node.js application for Wireshark network logging
  - C++ application for high-frequency data handling and device communication
- **Databases:**
  - ClickHouse with partitioning for storing high-frequency data
  - MySQL for storing device templates, user data, and other relational data
- **Additional Technologies:**
  - RESTful APIs for communication between frontend and backend services
  - JSON for data interchange
  - Wireshark for network data collection and analysis
  - CUBIC for creating custom Ubuntu ISO
  - Shell scripting for automation tasks
- **Development and Deployment:**
  - Version control – Git and BitBucket
  - Custom deployment process involving Ubuntu ISO creation
  - Automated update package creation and deployment

Education

- BCA (Bachelor of Computer Application) - CALICUT University
  MES KVM College Valanchery, Malappuram, Kerala