Aditya Varaha Narasimha Tatipaka

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PROFILE SUMMARY

Full Stack Software Engineer with over 5 years of experience developing scalable, high-performance web applications using **Node.js**, **Angular**, **Vue.js**, **TypeScript**, **JavaScript**, and **SQL**. Proven expertise in designing and implementing **RESTful APIs**, integrating **NoSQL** databases like **MongoDB**, and deploying applications to cloud platforms including **AWS** and **Azure**. Adept at optimizing system performance through efficient backend logic, query tuning, and **CI/CD** automation. Strong collaborator with a track record of delivering robust, maintainable, and production-ready solutions across the full technology stack.

TECHNICAL PROFICIENCY

Programming Languages & Frameworks: JavaScript (ES6+), TypeScript, Node.js, Express.js, Angular, Vue.js, React.js,

HTML5, CSS3,

Bootstrap, SQL, Java

Databases & Caching: MySQL, MongoDB, ArangoDB, Redis, DynamoDB

Cloud & DevOps: AWS (EC2, Lambda, S3, DynamoDB, CloudWatch, IAM, CloudFormation, SQS, API Gateway), Azure (App Services, Functions), CI/CD (GitHub Actions, Bamboo), Nginx, Apigee, Pivotal Cloud Foundry, Docker, Kubernetes, Containerization, Kafka, PM2

Integration & APIs: RESTful APIs, SOAP, GraphQL, WebSockets, Webhooks, OpenAPI/Swagger, RabbitMQ, JSON, NGINX

Tools & Testing: Git, GitHub, Jira, Confluence, Postman, Jest, Mocha, SonarQube, Splunk, New Relic, Visual Studio,

Software Development Concepts: Microservices Architecture, API Design, Test-Driven Development (TDD), Agile/Scrum, HIPAA Compliance, SDLC, Git, MVC, Middleware, Event-Driven Architecture, Web Services, Cloud Computing, Serverless

WORK EXPERIENCE

Rymedi, Inc – Senior Developer III | 08/2023 – Present | Greenville, SC

- Reduced data processing time by 95% and increased system scalability by 50% by leading the transformation from a monolithic to a **microservices** architecture.
- Boosted client acquisition by 30% during clinical trials by developing the "Predicate Orders" feature using **Node.js**, **Angular**, and **MySQL** to automate additional test orders.
- Improved workflow efficiency and reduced sample processing errors by **25%** by building the "Expanded Collection Process" feature for non-regulated samples.
- Enhanced decision accuracy by 20% by delivering a collaborative review feature for MRO users that streamlined client interactions.
- Increased interoperability and accelerated workflows by designing secure microservices using **REST APIs**, **HL7**, **OAuth**, and **HMAC** for third-party lab integrations.
- Reduced manual errors by over 50% and improved traceability by architecting and deploying a digital lab sample collection system using **Angular**, **AWS** S3, **Azure**, and **MySQL**.
- Shortened deployment time by 70% and improved environment consistency by implementing **CI/CD** pipelines with GitHub Actions.
- Resolved recurring production bugs by identifying root causes through log analysis and **debugging**, implementing backend fixes in **Node.js**, and collaborating with QA to ensure long-term stability in healthcare workflows.
- Standardized backend practices by introducing reusable middleware for error handling, **authentication** (OAuth/HMAC), and logging across Node.js **microservices**.
- Created detailed **Swagger** documentation for internal REST APIs to enable smoother handoffs across QA, support, and integration teams.
- Proposed and implemented data validation pipelines using **middleware** in **Express.js**, reducing invalid records reaching the MySQL.
- Improved code quality and developer onboarding by upgrading deprecated Node.js code to **ES6** modules and async/await patterns.

University of North Texas – Application Developer Graduate Assistant | 08/2022 – 05/2023 | Denton, TX

- Collaborated with professors to identify student pain points and provided targeted tutoring sessions, increasing class pass rate by 15%.
- Refined advanced JavaScript proficiency by mastering concepts like hoisting, scope, and **middleware**, and by implementing complex data structures and algorithms.
- **Developed Grading Rubric**: Created consistent grading rubric for programming and data analysis assignments, resulting in more focused student work and improved coding practices.
- **Mentored Students**: Taught and mentored over 30 students in Introduction to Big Data, Data Science, and advanced **JavaScript**, providing comprehensive support through office hours and lab sessions.

- **Led Code Review Sessions**: Conducted code review sessions for data processing applications, significantly enhancing students problem-solving skills and project quality.

Accenture – Software Engineer | 07/2020 – 07/2021 | Bengaluru, India

- Architected and developed core components of Accenture's healthcare insurance suite using **Node.js** and **Express.js**, delivering a scalable platform that streamlined processing and provider management.
- Automated the **end-to-end** transformation pipeline by extracting column and row data from multi-sheet Excel files, converting it into structured **JSON**, and storing it in **ArangoDB** using **Node.js** to support downstream healthcare data processing.
- Implemented a **NoSQL** database solution with ArangoDB to optimize storage and retrieval of complex insurance data structures, improving query performance and enabling efficient handling of interconnected healthcare information.
- Created interactive data visualization dashboards using **D3** charts integrated with ArangoDB queries, enabling stakeholders to analyze insurance trends, identify cost-saving opportunities, and monitor key performance metrics
- Designed and built **REST APIs** facilitating seamless integration between the ArangoDB backend, insurance systems, provider networks, and third-party services while ensuring **HIPAA** compliance and data security
- Collaborated with cross-functional teams to translate complex insurance business requirements into technical specifications, developing features that reduced manual processing.

Accenture – Software Engineer | 07/2018 – 07/2021 | Chennai, India

- Improved team performance by **175%** by streamlining the deployment process of microservices using the Bamboo **CI/CD** platform.
- Developed and maintained **5+ Node.js microservices** to transform raw building data into digital invoices and PDF documents for a major telecommunications client.
- Devised and executed comprehensive test suites unit tests using **Jest**, and **Mocha** to achieve a code coverage rate of 95%, resulting in a 50% reduction in post-production bugs.
- Orchestrated integration of **SonarQube** with **Bamboo** to scan dependencies for known security vulnerabilities, resulting in a 90% reduction in high-risk vulnerabilities within code.
- Formulated modular architecture using **Node.js, AWS** to develop microservices, resulting in a 40% reduction in code complexity and an overall increase in application performance by 20%.
- Engineered **API Proxies** in **Apigee EDGE**, seamlessly integrating Load Balancing, **Authentication**, and **Monitoring** functionalities for the APIs, increasing the application's robustness by 20%.
- Contributed to **Agile** sprint ceremonies including planning, stand-ups, retrospectives, and demos, ensuring cross-functional alignment and timely delivery.
- Collaborated with **cross-team** architects to integrate Node.js and Spring Boot services, aligning on interfaces and ensuring seamless data flow across systems.
- Authored **Swagger documentation** and managed API lifecycle across microservices to ensure consistent internal and external API consumption.
- Conducted **unit, integration, and regression testing** using Postman, Mocha, and in-house tools, increasing delivery confidence across multiple microservices.
- Honored with the **'ACE Excellence Award'** in the team category by Accenture for exceptional performance in FY19.

PROJECTS

COVID-19 Detection using X-Rays (09/2022 – 10/2022)

- Led a team of 4 to develop an AI-powered web application using **Node.js**, **Express.js**, EJS, **MongoDB**, and Python for analyzing chest X rays, achieving 95% COVID-19 detection accuracy.
- Implemented a scalable architecture with **RESTful APIs** to securely integrate the machine learning model (Python backend) with the Node.js/EJS frontend, enabling efficient data processing and result delivery.

Student Information System (09/2021 – 10/2021)

- Architected and built a full-stack application using **Node.js**, **Express.js**, EJS, Bootstrap, CSS, and **MySQL** to manage student data, utilizing indexing to improve query performance by 20%.
- Designed and implemented a role-based access control system with secure authentication, providing differentiated views for students, faculty, and administrators while ensuring data privacy and integrity.

EDUCATION

- **Master of Science in Computer Science –** University of North Texas, Denton, TX (08/2021 – 05/2023)
- **Bachelor of Technology in Computer Science & Engineering –** GITAM University, Vizag, India (07/2014 – 05/2018)