

Jose Guillermo Martinez

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SUMMARY

Structural Engineer transitioning to Back End Software Engineering with hands-on experience building scalable full-stack applications using JavaScript, Node.js, React, and MongoDB, including RESTful API design, cloud-based solutions, and Agile development practices. Leverages strong problem-solving, system design, and cross-functional collaboration skills to deliver robust, maintainable software solutions.

EDUCATION

Georgia Institute of Technology

M.S. in Computer Science (Machine Learning) | GPA: 4.00

Expected May 2027

- **Coursework:** Knowledge Based-AI, Analytics Modeling, Network Science, Software Development

Texas A&M University

B.S & M.S. in Civil Engineering (Structural Engineering)

Aug. 2016 – May 2021

EXPERIENCE

Engineer

June 2024 – Present

Parkhill

Lubbock, TX

- Developed custom full-stack web applications using React, CosmosDB, and Node.js with version control to replace third-party project management software, reducing annual software licensing costs by approximately \$25,000
- Designed and implemented scalable REST API backend with Node.js, Express, and MongoDB following SDLC best practices and Agile methodology, improving performance and enabling seamless integration with front-end services
- Conducted code reviews and debugged existing C#/.NET code-base, implementing modular extensions to enhance maintainability, streamline cross-functional collaboration, and accelerate future development cycles

Structural Engineer

Jul. 2021 – May 2024

Hunt & Joiner, Inc.

Dallas, TX

- Facilitated technical communication between clients and internal development teams using clear, concise language in order to translate complex requirements and resolve technical blockers efficiently, ensuring project alignment and successful delivery

PROJECTS

Personal Achievement Tracker | MongoDB, Express, React.js, Node.js

- Developed and deployed a cross-platform full-stack web application with real-time synchronization using MongoDB and Express.js, enabling seamless user experience across desktop and mobile devices
- Implemented secure OAuth 2.0 authentication and authorization by integrating Clerk's enterprise-grade system, ensuring data privacy and user-specific access control without managing sensitive credentials
- Designed a scalable RESTful API architecture with efficient CRUD operations and database indexing, reducing data retrieval time and improving application performance for growing user base

RESTful API for Movie Rentals | MongoDB, Express, Node.js

- Engineered a production-ready RESTful API with Node.js and Express following industry best practices, implementing comprehensive CRUD operations with MongoDB
- Enhanced API security and reliability by implementing JWT-based authentication, role-based authorization, input validation middleware, and comprehensive unit and integration testing

SKILLS

Programming: Python, JavaScript, TypeScript, SQL, R, C#, Next.js, Node.js, Express.js, React.js, MongoDB, NoSQL DB, PostgreSQL, Git, RStudio, Jupyter Notebooks, Android Studio

Languages: English, Spanish, Japanese (Basic)

Certifications: Google Data Analytics, Google Advanced Data Analytics, DeepLearning.AI Supervised ML