

# 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