

SAYRA LINETT RODRIGUEZ

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PROFESSIONAL SUMMARY

Front-End Software Engineer with experience building UI systems in JavaScript. Skilled at modernizing legacy applications with scalable, modern web components, integrating APIs, and improving user experience through testing and clean design. Currently deepening expertise in React and modern front-end frameworks through personal projects. Quick learner with broad exposure across back-end and embedded systems, now specializing in front-end development with a focus on growth and long-term impact.

PROFESSIONAL EXPERIENCE

NOV – Houston, TX

SOFTWARE ENGINEER

Dec 2024 - Present

- Contribute to the modernization of legacy drilling system interfaces by translating C++-based UI components into scalable JavaScript-driven web architectures, improving maintainability and cross-platform support.
- Develop and enhance an internal component-based UI editor designed to unify screen creation across multiple SDK-dependent systems, standardizing how interfaces are built company-wide.
- Implement interactive editor features including zoom functionality, dynamic slide-out component panels, and reusable layout components to improve usability and developer efficiency.
- Design and maintain automated unit tests using Jest and JUnit to improve deployment reliability and reduce regression defects.
- Collaborate in Agile cross-functional teams to design, test, and deploy high-quality features for complex industrial HMI systems.
- Researched and prototyped secure OPC UA communication using Open62541 and JNA to support reliable connectivity for HMI platforms.

SOFTWARE ENGINEER - PATHWAY ROTATIONAL PROGRAM

Jan 2023 - Dec 2024

- Adapted to three engineering teams, gaining experience across multi-platform software systems, testing, and debugging procedures.
- **UI Systems Team:** Implemented JavaScript components, executed automated tests with Jest, and replaced legacy architecture to improve scalability and maintainability.
- **Amphion Team:** Developed automation software with Ladder Logic and Structured Text; programmed SBCs in Java to deliver reliable, cost-effective control solutions.
- **NOVOS HMI Team:** Built and debugged Linux-based C++ UI features, resolved software defects, and performed simulation testing to validate system performance for rig operations.

Hynes & Khater – Houston, TX

SOFTWARE DEVELOPER

Mar 2022 - Jan 2023

- Built and maintained client-facing applications in an Agile environment.
- Enhanced application performance through debugging, testing, and iterative improvements.
- Collaborated with cross-functional teams to design and deploy scalable solutions.

TECHNICAL SKILLS

Front-End: JavaScript, React, Vite, HTML, CSS, Chart.js, D3.js

Testing & Tools: Jest (JavaScript), JUnit (Java), Azure DevOps, Git/GitHub

Back-End & Systems (Exposure): Java, Python, C, C++, REST API Integration, Linux, OPC UA (Open62541, JNA)

Other: Agile/Scrum, UX/UI

EDUCATION

University of Houston - Main Campus: **Bachelor of Science, Computer Engineering, with a Minor in Mathematics**

TECHNICAL PROJECTS

BUDGETING WEB APP - Front-End Developer

React, Vite, Context API, Chart.js, D3.js, Django API

Key Contributions Include:

- Built a modular, multi-page React app using Vite and Context API for global state management.
- Ensuring seamless integration of front-end components with backend API endpoints, enabling real-time data updates.
- Developed interactive data visualizations (Chart.js/D3.js) to enhance UX and provide actionable financial insights.
- Collaborated with backend engineer to deliver real-time updates and full-stack functionality.