Alex Gomez

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Skills

Programming: Python, C/C++, C#, JavaScript, Flutter/Dart, Node.JS, React.JS, Express.JS, Bash/UNIX, HTML/CSS, GIT
Systems Engineering: CAMEO, Simulink, DOORS
Tools: Visual Studio, Visual Studio Code, MongoDB (NoSQL), Docker, Azure DevOps, Android Studio, Postman
Language: English, Spanish (Fluent), French (Beginner)

Experience

Senior Software Test Engineer, Bell Textron – Hurst, TX   **August 2025 – Present**
Software Test Engineer, Bell Textron – Hurst, TX   **June 2024 – August 2025**

- Designed and maintained automated testing pipelines in Azure DevOps to support CI workflows across Linux, RTOS, and avionics test benches, enabling staged validation from simulation to Hardware-In-The-Loop testing.
- Developed and versioned C# libraries for the Bell Avionics High Level Testing Framework, published as NuGet packages from build pipelines in ADO to Artifactory for consistent and reusable test integration.
- Automated the full test lifecycle—from requirement-linked test cases to result reporting—with integrated metrics dashboards for traceability and continuous improvement.
- Built developer tooling to programmatically interface with Azure DevOps, IBM DOORS, and Artifactory, reducing friction and accelerating of various workflows across engineering teams.
- Authored comprehensive documentation and guides for configuration, testing, and reporting systems, enabling cross-team onboarding, standardization, and sustained maintainability.

Product Cybersecurity Engineer, Bell Textron – Hurst, TX   **July 2023 – June 2024**

- Decomposed high-level cybersecurity requirements into detailed system, subsystem, and component specifications for Bell's FLRAA program utilizing MBSE tools.
- Delivered technical presentations directly to customers in response to Requests for Action (RFA), clarifying design decisions and requirement traceability for cybersecurity services.

Education

Texas A&M University – BS in Aerospace Engineering, Minor in Computer Science   **May 2023**

Projects

RestaurantRandomizer   **github.com/gomeii/RestaurantRandomizer**

- Built custom **geolocation-based search** and rendered real-time map markers with responsive UI updates.
- Developed an interactive **restaurant selection web application** with a randomized wheel animation, enhancing user engagement.

MoviePicker   **github.com/gomeii/MoviePicker**

- Engineered RESTful APIs to handle **movie search, user authentication**, and **CRUD operations** on saved content
- Integrated **OMDb API** to retrieve and display structured movie and TV show metadata.
- Built reusable **React** components for dynamic search and user profile views; configured Docker containers for local development and deployment.

Early Experience

Aerospace Engineering Intern, Textron Systems – Cockeysville, MD   **May 2022 – Aug 2022**

- Developed flight test analysis tools using MATLAB, JavaScript, and HTML, reducing subscale testing workflow time by 25%.
- Supported autopilot integration for unmanned aerial systems, contributing to embedded systems reliability.

Propulsion Engineering Intern, Textron Aviation - Wichita, KS   **May 2021 – Aug 2021**

- Investigated fuel system defects using flight data and updated CATIA V6 models to support tolerance fixes and drawing revisions