

GIOVANNIE SANCHEZ DIAZ

Senior Software Engineer | Enterprise Product Development | Full-Stack | AI Integration
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PROFESSIONAL SUMMARY

Senior Software Engineer with 9+ years of experience designing and delivering enterprise software products across aerospace, healthcare, government, and commercial industries. Experienced throughout the full software development lifecycle, from requirements gathering and architecture to deployment and production support. Specialized in full-stack application development and enterprise product architecture using Angular, React, Node.js, JavaScript/TypeScript, Python, and SQL Server. Experienced integrating AI capabilities using LangChain, Retrieval-Augmented Generation (RAG), OpenSearch, embeddings, and large language models, as well as deploying and supporting containerized applications with Docker and OpenShift. Recognized for modernizing legacy platforms, leading technical initiatives, and transforming complex business requirements into scalable enterprise products.

TECHNICAL EXPERTISE

- **Languages:** C#, JavaScript, TypeScript, Python, Java, SQL, Kotlin, Swift, C++, Rust, PHP, VB.NET
- **Frontend:** Angular, React, React Native, HTML5, CSS3, Angular Material, Bootstrap, Apache ECharts
- **Backend:** Node.js, Express.js, ASP.NET MVC, REST APIs, WebSockets
- **AI:** LangChain, RAG, OpenSearch, Semantic Search, Ollama, Prompt Engineering, SSE
- **Databases:** SQL Server, MySQL, MongoDB, Apache Spark, Elasticsearch/OpenSearch
- **Cloud & DevOps:** Docker, OpenShift, Git, GitLab, GitLab CI/CD, Harbor, AWS, Linux
- **Tools:** Apache Airflow, Visual Studio, VS Code, Jira, Postman

PROFESSIONAL EXPERIENCE

Lockheed Martin

Promotion: Senior Software Engineer III (09/2023–Present)

Software Engineer II (05/2022–09/2023)

Design, architect, and deliver enterprise software products supporting planning, collaboration, AI-assisted workflows, reporting automation, geospatial analytics, and enterprise knowledge management for multiple business organizations.

CI Planner, Black Hat

- Architected and led development of CI Planner, an enterprise planning platform supporting collaborative planning, Gantt visualization, document management, PowerPoint generation, tagging, and role-based workflows.

Technologies: Angular | Node.js | SQL Server | Apache ECharts | WebSockets

CI Links

- Architected and developed CI Links, a centralized enterprise resource catalog that enables organizations to publish, manage, and discover internal resources through a self-service administrative platform.

Technologies: Angular | Node.js | SQL Server

LM Demographics

- Modernized a legacy mapping platform using Angular, OpenStreetMap, GeoJSON, and government demographic datasets.

Technologies: Angular | OpenStreetMap | GeoJSON | SQL Server

Enterprise PDF Generator

- Designed a reusable reporting engine that transforms HTML data into professionally formatted PDF reports.

Technologies: Node.js | HTML

Platform Modernization

- Led the redesign of CI HUB with responsive layouts, mobile compatibility, and Microsoft 1LIX design principles.
- Migrated Tableau dashboards to Apache ECharts.
- Implemented a reusable WebSocket (Socket.io) collaboration system.

AI & Enterprise Knowledge

- Developed major frontend and backend capabilities for LMOmniAI, including streaming conversations, configurable AI workflows, conversation history, and enterprise LLM integrations.
- Maintained LangChain applications and enhanced existing RAG systems.
- Designed and developed My Expertise, integrating the White Pages API to enable searchable employee expertise profiles and organizational tagging. Developed the frontend for SME Finder, delivering an intuitive interface for AI-assisted subject matter expert discovery.

Automation, Data & Infrastructure

- Designed and implemented Apache Airflow pipelines to automate extraction, transformation, and ingestion of public API data into enterprise systems.
- Developed automated PowerPoint and PDF generation services.
- Supported Docker/OpenShift production environments and resolved container issues.

Assistance — Software Engineer (10/2019 - 05/2022)

- Architected and developed a cross-platform telemedicine platform using the MERN stack, React, React Native, and WebRTC, enabling secure virtual healthcare consultations across web and mobile devices.
- Built emergency response features for Dr. Security Spain, enabling on-demand access to device gyroscope, camera, and microphone during emergency situations.
- Developed an Android SDK for the MMM Medical Insurance partnership and introduced Sonatype Nexus OSS to streamline SDK packaging, versioning, and distribution across development teams.
- Contributed across the complete software development lifecycle, including requirements gathering, solution design, implementation, cloud deployment, and AWS infrastructure management.
- Extended and customized the open-source OSTicket platform to support organization-specific operational workflows, delivering capabilities that were previously unavailable within the existing system.
- Collaborated with infrastructure and IT teams to identify operational risks, improve application security, optimize deployment processes, and support compliance with healthcare industry standards.

INVID — Software Developer (04/2019 - 10/2019)

- Designed a custom judge assignment algorithm for the Puerto Rico Court Administration.
- Developed enterprise web applications using Angular, ASP.NET, and Java Spring Boot for government and commercial clients.
- Supported Azure deployments.
- Migrated legacy app and extended the existing web and mobile application for the Autonomous Municipality of San Juan.
- Mentored software developers by providing technical guidance, code reviews, and implementation support.

CEGSoft — Junior Software Developer (07/2017 - 04/2019)

- Developed ASP.NET MVC enterprise applications including Expert Taxes, Taxmania, and FollowIt.
- Designed and developed reusable internal frameworks and a hybrid mobile application using AngularJS and C#, packaging shared components through NuGet and Microsoft Team Services (Azure DevOps) to simplify dependency management and code reuse across multiple projects.
- Prototyped and researched a custom hybrid Ionic application for internal requirements, utilizing the Outlook API.
- Modernized existing enterprise applications by improving performance, redesigning key modules, and delivering new functionality based on changing business requirements.

Entrepids — Frontend Web Developer (01/2017 - 07/2017)

- Developed responsive Magento e-commerce interfaces for international retail clients including Best Buy, GNC, Axalta, and Dormimundo.
- Designed and implemented native Android e-commerce prototype for GNC in Java, emphasizing navigation and core design elements.
- Created design mockups and digital assets using industry-standard tools like Adobe Illustrator and Photoshop.

University of the Sacred Heart — IT Support (09/2015 - 09/2016)

- Researched AI-based Twitter sentiment analysis using Python while administering Linux/Apache infrastructure supporting internal university services.
- Designed, coded hybrid internal mobile portal for visitors using Ionic UI.

SELECTED PERSONAL PROJECTS

- **[Quizit](#)**: AI-powered Android learning platform that transforms topics and images into interactive quizzes using LLMs, OCR, Puppeteer, and custom MathML generation for mathematical content. Designed to automate educational content creation while preserving complex equations and formatting.
- **[Searchit](#)**: Android productivity application providing universal search across installed apps, contacts, files, calendar events, device settings, and other local content through a unified search interface inspired by desktop launchers.
- **[Peerit](#)**: Decentralized watch-party platform that synchronizes video playback across participants using peer-to-peer torrent technology instead of centralized servers. Features integrated chat, Picture-in-Picture support, and Dropbox-backed media sharing, allowing anyone to host synchronized streaming sessions without dedicated infrastructure.
- **[Intelli Clip](#)**: Electron desktop application that stores clipboard history, files, and images while enabling semantic search using SQLite, local embeddings, and Ollama-powered language models. Designed as a privacy-focused local AI productivity assistant with intelligent retrieval capabilities.
- **Tetherit (Under Development)**: Android and Node.js networking solution that routes internet traffic through an Android phone's mobile data connection without requiring root, ADB, or hotspot plans. Supports USB (Android Open Accessory) and Wi-Fi Direct transports, transparent tunneling and a built-in SOCKS5 proxy.

EDUCATION

M.S. Computer Science (2025) — Inter American University of Puerto Rico

B.S. Computer Science (2016) — University of the Sacred Heart

CERTIFICATIONS

[AWS Certified Cloud Practitioner \(2023\)](#)

[Deep Neural Networks with PyTorch \(2024\)](#)