Alex Herrera Manzanares

Cybersecurity · Application and Network Security

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Available for a university internship · Jan – Apr 2027

PROFESSIONAL SUMMARY

Software Developer focused on secure architectures (AppSec) and network security. Experienced in vulnerability assessment, attack testing, role-based access control (RBAC) and sensitive data protection across corporate platforms. Applies Security by Design from the code through to continuous deployment (CI/CD).

TECHNICAL SKILLS

Application Security:	Vulnerability assessment, attack testing, instance segmentation, server-side query filtering, injection prevention, CSP, rate limiting, input validation.
Access Control:	Role-based access control (RBAC), session management, privilege segmentation, audit logs, secrets management.
Network Security:	VLAN, firewall, VPN, ACLs, DNS, high availability, Cisco Packet Tracer.
Detection and Risk:	Threshold detection, automatic response, risk analysis, ISO 27001.
Cloud and Systems:	Google Cloud Platform, Azure, AWS, Docker, TLS, Linux server administration.
Version Control and CI/CD:	Git, GitHub Actions.
Secure Development:	TypeScript, Python, SQL, Node.js, NestJS, Next.js.
Verification:	Vitest, Playwright, Jest.

PROFESSIONAL EXPERIENCE

Software Developer
Jul 2026 – Present

Intercargo Panamá (via Kaizen Apps CR) · project-based

- Segmented the corporate platform architecture, isolating public instances from authenticated environments to limit how far an incident can reach.
- Hardened the production security posture (AppSec) through strict CSP policies, rate limiting, upload quotas, mandatory TLS encryption to the database and defense against AI prompt injection.
- Covered the system with 2,243 unit tests and 27 end-to-end (E2E) suites, adding a dedicated attack suite for each corporate module.
- Built the internal portal on an invite-only access model, with remote revocation of any active session.
- Automated the Due Diligence process by integrating generative AI models for document reading, leaving validation and critical decisions entirely to code logic.
- Closed a data exposure in collections by making balance disclosure conditional on prior client identity verification over WhatsApp Cloud API.

Technologies: Next.js 16, React 19, TypeScript, Node.js, MySQL / Cloud SQL, Cloud Run, Cloud Build, Secret Manager, Docker, Vitest, Playwright, WhatsApp Cloud API, Gemini.

Web Developer
Jan 2026 – Present

Star Cargo Service · project-based

- Designed and deployed a custom CRM with a permissions module that bounds the information each user profile can reach.
- Monitored the Supabase Security Advisories and scoped role-level permissions over the PostgreSQL tables.

Technologies: Next.js, React, TypeScript, Tailwind CSS, NestJS, Node.js, Supabase, PostgreSQL, Vercel, AppSheet, Apps Script.

Tier 1 Technical Support
Jan 2025 – Jan 2026

Star Cargo Service

- Resolved connectivity issues and equipment setup, and handled remote assistance for users across the organization.

Software Developer and Tier 2 Technical Support Jan 2024 – Present

Kaizen Apps CR · full-time

- Built four custom internal systems and the corporate portal, from requirements gathering to deployment and production maintenance.
- Added features and fixed defects in the HR ERP the company sells under license.
- Administered the continuous integration (CI/CD) pipelines on GitHub Actions, automating the AI tooling across the team's repositories.
- Provided Tier 2 technical support, running root cause analysis at code level and resolving incidents involving access control, user permissions and data integrity.

  Technologies: Astro, React, Next.js, Angular, TypeScript, NestJS, AppSheet, Apps Script.

SECURITY PROJECTS

Secure IT Infrastructure for a Hotel Chain, 4 sites Sep – Dec 2025

Academic project

- Designed the logical and telecommunications architecture for a corporate network spread across four sites, with VLAN segmentation and encrypted point-to-point links.
- Defined regulatory compliance and ran risk analysis, setting access control policies through firewalls, VPNs and access control lists (ACLs) in a hybrid cloud environment aligned with ISO 27001.

  Areas: VLAN, firewall, VPN, ACLs, high availability, risk analysis, ISO 27001, Azure, Cisco Packet Tracer.

Threshold-based blocking antivirus Jul – Aug 2026

Academic project

- Wrote an automated detection system that watches system activity, checks it against predefined thresholds and triggers blocking actions on anomalies.
- Encrypted the critical content with open-source libraries and deployed the supporting infrastructure on Amazon Web Services (AWS).

  Areas: AWS, threshold detection, automatic response, encryption.

Kaizen AI, secure enterprise data querying Sep 2025 – Jul 2026

Kaizen Apps CR

- Kept permission control outside the model: a server-side filter inspects the query the AI generates and applies the user permissions before it runs.
- Added role-based permissions and an audit log of every query.

  Areas: Role-based access control, query filtering, auditing, prompt injection defense.

EDUCATION

Bachelor's Degree in Information Technology Engineering. Universidad Técnica Nacional. Jan 2024 – Present.

COURSES AND CERTIFICATIONS

Introduction to Cybersecurity. Cisco Networking Academy. Jul 2026.

Google Cloud Computing Foundations. Google Cloud, in progress. Aug – Dec 2026.

LANGUAGES

Spanish: Native.

English: Advanced, PIT-UTN certified.