Boris Gomez

Founder & Backend Engineer — IngenIA Solutions

Miami, FL, USA | Remote / Open to international clients | bg@borsgo.com | borsgo.com

PROFILE

Backend engineer specializing in payment security and cryptography for financial services and other security-driven industries, including HSM-backed key management, card tokenization, and digital wallet provisioning, aligned with PCI DSS and PCI Card Production security standards. Extensive experience across Python, Java, Node.js and C#. Founder of IngenIA Solutions, providing independent backend engineering and consulting services to clients with high security and compliance requirements.

EXPERIENCE

Founder & Backend Engineer — IngenIA Solutions

Miami, FL (Remote) | January 2022 – Present (part-time until Dec 2025, full-time since)

- Providing independent backend engineering and consulting services for clients in financial services and other security-driven industries, based in the Latin American market.
- Designed a dual hardware/software cryptographic architecture using a payment HSM in production and equivalent software-based modules for testing and staging environments, aligned with PCI DSS and PCI Card Production requirements.
- Implemented HSM-backed key management via PKCS#11 (Python), generating and storing RSA, AES, DES/3DES, ZMK and elliptic curve (EC) keys, ensuring private key material never leaves secure hardware.
- Established EC-based key exchange (ECDH) with a digital payments platform for secure data sharing and authorization token handling.
- Implemented cardholder and PIN verification cryptographic functions (CVV/CVC and PVV generation and validation) used by transaction authorization systems.
- Built software-equivalent JWT authentication and JWE encryption (EC/ECDH) modules for API-to-API security in environments without physical HSM access.
- Integrated third-party SDKs for digital wallet provisioning, and built the API integrations managing credential issuance, transaction processing, and validation by authorization systems.
- Implemented secure file transfer workflows for sensitive banking data, including GPG-encrypted file exchange over SFTP and file retrieval through existing IBM WebSphere MQ configurations.

IT Project Manager — Newtech Solutions Group Corp

Miami, FL, USA | April 2017 – December 2025

- Managed coordination and technical integration of engineering activities across software projects.
- Developed backend services with Node.js and MongoDB, deployed on Google Cloud infrastructure.

VP Operations & Project — Newtech Solutions Group C.A.

Caracas, Venezuela | 2010 – March 2017

Led backend development (Python, Java, Oracle, C#, Web Services, Sockets) and managed the industry-wide migration from magnetic stripe to EMV smart card technology for the banking sector in Venezuela.

SKILLS

Languages & Frameworks: Python (primary, 2024–present), Java, Node.js (2020–2024), C# (legacy/maintenance), Flask

Payment Security & Cryptography: HSM integration (PKCS#11), RSA, AES, DES/3DES, ZMK, CVK, CVV/CVC and PVV generation & validation, elliptic curve cryptography (EC/ECDH), JWT, JWE

Compliance: PCI DSS, PCI Card Production

Digital Payments: Card tokenization, digital wallet provisioning via SDK integration (Apple Pay, Google Pay, Samsung Pay), network tokens

Infrastructure & Data: Google Cloud, MongoDB, Oracle, Web Services, Sockets, GPG/SFTP secure file transfer, Git

Professional: Attention to detail, quick learner, empathy-driven leadership

EDUCATION

Ingeniero en Informática (Computer Science Engineering) — Universidad Católica Andrés Bello, 2003