

Sergio F.

Expert Solana Blockchain Engineer

SUMMARY

- Senior Blockchain Engineer with 20+ years in software development and a strong track record in the Solana ecosystem;
- Experienced in Rust for Solana smart contract development, with extensive experience building on-chain programs for DeFi, staking, NFT, and messaging platforms;
- Skilled in full-stack development: React and TypeScript for front-end dApps, Node.js and Python for backend systems;
- Experience with AWS and Google Cloud for scalable cloud applications and infrastructure;
- Ability to lead teams and manage projects, including migrating Ethereum products to Solana (Community Gaming);
- Skilled in blockchain frameworks and tools: Anchor, CPI, Metaplex, Token-2022;
- Strong SQL background with hands-on experience in PostgreSQL, MySQL, and SQLite;
- Experienced in system architecture, Linux server administration, and distributed applications;
- Notable achievements include leading Solana product delivery for NeuralBond (on-chain messaging) and Palus Finance (staking platform).

TECHNICAL SKILLS

Main Technical Skills	Rust, Solana
Programming Languages	C#, Java, Kotlin, Objective-C, Python, Rust, Swift, TypeScript
AI & Machine Learning	AI
Mobile Frameworks and Libraries	Crashlytics, Metal
Android Libraries and Tools	Kotlin
JavaScript Frameworks	Lodash, Node.js, React
PHP Frameworks	Slim
Databases & Management Systems / ORM	Aurora, PostgreSQL, SQL

Cloud Platforms, Services & Computing	AWS, GCP
Amazon Web Services	AWS Lambda
Google Cloud Platform	Cloud Functions
Industry Domain Experience	Blockchain
BlockChain and Decentralized Software	Anchor, ETH (Ethereum blockchain), NFT, Smart Contract, Solana
SDK / API and Integrations	API
Methodologies, Paradigms and Patterns	Flows
Operating Systems	Linux, macOS
Platforms	Mobile App
Mail / Network Protocols / Data transfer	Modbus, Packet Filter, Postfix, Teleport
Web/App Servers, Middleware	Nginx
Scripting and Command Line Interfaces	Perl
UI/UX/Wireframing	UX
Other Technical Skills	Akamai Cloud, ALT, Borsh, CPI, IBM Cloud, Linea, Metaplex, Minting, Nonce, Partial Signatures, Secret Manager, Serde, Token-2022

WORK EXPERIENCE

Solana Developer, NeuralBond

Duration: 2025

Summary: Developed the NeuralBond app, a decentralized on-chain messaging system in Solana, designed to eliminate spam and enable users to receive paid messages.

Key Responsibilities:

- Built Solana smart contracts in Rust to handle encrypted, decentralized communication;



- Implemented backend functions for secure data flow and payment logic;
- Developed a React-based frontend with AI-assisted features to enhance UX;
- Integrated on-chain message validation and delivery mechanisms.

Technologies: Solana, Rust, Typescript, React, Borsh, Serde.

Solana Developer, Palus Finance

Duration: 2025

Summary: Contributed to the development of a Solana staking platform with advanced on-chain functionalities.

Key Responsibilities:

- Programmed Solana smart contracts in Rust for staking and rewards distribution;
- Developed backend functions to interact with the Solana blockchain;
- Built a React frontend for user interaction with staking features;
- Ensured secure handling of transactions and state management.

Technologies: Solana, Rust, React, Typescript, Metaplex, Token-2022.

Solana Developer, Teleport

Duration: 2024

Summary: Built Solana programs to enable NFT integrations and interactions with Metaplex products.

Key Responsibilities:

- Designed and implemented Solana smart contracts in Rust for NFT operations;
- Integrated backend logic for transaction flows and asset management;
- Worked with Metaplex tools to enable NFT minting and transfers.

Technologies: Solana, Rust, Metaplex, Typescript.

Solana Tech Lead, Community Gaming

Duration: 2022 - 2023

Summary: Led migration of an Ethereum-based product to Solana, including smart contract development and backend infrastructure.

Key Responsibilities:

- Led a 3-person development team, managing scope and delivery;
- Built Solana smart contracts in Rust for gaming logic;
- Designed AWS-based backend to track fund movements in/out of platform;
- Coordinated cross-functional development between blockchain and backend.

Technologies: Solana, Rust, AWS, CPI, Anchor, Typescript.

Project Manager, Halo App

Duration: 2020 - 2021



Summary: Designed and built backend infrastructure for a two-sided temporary work marketplace, including payments, dashboards, and documentation.

Key Responsibilities:

- Developed backend using Google Cloud (Firestore, Cloud Functions in Node.js);
- Integrated Stripe for secure payment processing and fund tracking;
- Created admin dashboards using Retool for analytics and monitoring;
- Documented all technical aspects for due diligence preparation.

Technologies: Node.js, Firebase, Google Cloud, Retool, Stripe.

IBM Watson Architect, Feedback Avatars

Duration: 2019

Summary: Designed and implemented a conversational AI solution on IBM Cloud with Watson Assistant and Postgres-based analytics.

Key Responsibilities:

- Built backend with Node.js cloud functions and PostgreSQL;
- Integrated Watson Assistant for conversational flows;
- Designed dialogue interactions for effective customer guidance;
- Delivered analytics dashboards in Looker for management and billing.

Technologies: IBM Cloud, Watson Assistant, Node.js, PostgreSQL, Looker.

RPi Developer, PVPI

Duration: 2018

Summary: Built a Raspberry Pi MVP for monitoring solar panel performance.

Key Responsibilities:

- Developed Python scripts with MODBUS TCP to query inverters;
- Stored performance data locally in SQLite;
- Built Node.js + HTML web interface for real-time performance graphs.

Technologies: Python, Raspberry Pi, MODBUS TCP, SQLite, Node.js.

Principal Engineer, Via Movil LA

Duration: 2009 - 2014

Summary: Designed and maintained SMS-based subscription services platform, handling millions of daily transactions.

Key Responsibilities:

- Developed multithreaded C#.NET Windows Service for transaction processing;
- Implemented MSSQL queries for payment reconciliation with telecoms;
- Built and optimized REST APIs for external integrations.

Technologies: C#.NET, MSSQL, REST APIs, Windows Services.



iPad Developer, Moenia FM

Duration: 2012

Summary: Built an interactive iPad music app integrating real-time audio processing and visualizations.

Key Responsibilities:

- Developed C++ audio logic with FMOD game audio library;
- Integrated Obj-C interface for iOS;
- Built real-time audio effects and waveform visualizations.

Technologies: C++, Objective-C, FMOD Audio Library, iOS.

Staff Developer, Redwood Technologies

Duration: 2007 - 2009

Summary: Contributed to development of Momentem, a BlackBerry time-tracking app.

Key Responsibilities:

- Worked on backend development in Perl and MySQL;
- Developed client-side features in BlackBerry Java;
- Participated in full development lifecycle, including testing and deployment.

Technologies: Java (BlackBerry), Perl, MySQL

SELECTED OPEN SOURCE PROJECTS

NeuralBond (Rust, React, Solana)

- On-chain messaging app designed to eliminate spam by requiring payment to send messages.
- Implemented Solana smart contracts in Rust, frontend in React, and integrated AI-driven UX features.
- GitHub: <https://github.com/sflores/nBond>

SCA - Solana Community Assets (Rust, Solana Token-2022)

- Framework for tokenized community engagement on Solana.
- Built Rust programs for creating and distributing assets, with full compatibility for Solana's Token-2022 standard.
- GitHub: <https://github.com/sflores/solana-community-assets>

NFT Demo dApp (Rust, React, Metaplex)

- Minimal NFT minting and management app showcasing integration with Solana wallets.
- Built using Rust smart contracts and React frontend with Metaplex SDK.
- GitHub: <https://github.com/sflores/nft-demo>

Rust Bloom Filter (Rust)

- High-performance Bloom filter implementation optimized for probabilistic membership queries.



- Designed for memory efficiency and fast lookups.
- GitHub: <https://github.com/sflores/rust-bloom-filter>

EDUCATION

UNAM, Mathematics

