Peter Sjolin

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SUMMARY

Software Developer with over 15 years of experience in building complex applications utilizing Go, Solidity, Rust, vanilla JavaScript full stacks, PostgreSQL/MySQL, and various blockchain technologies. Proven expertise in developing smart contracts, decentralized applications, and RESTful APIs, achieving significant performance improvements, such as optimizing processing times from over 8 hours to just 17 minutes.

WORK EXPERIENCE

06/2025 – Present Web3 Game Backend Developer (Solidity + Forge/Cast + Go), Fuzzwuzz.xyz *Remote*

- Engineered a Solidity NFT AlphaCard smart contract and deployed it on the Base mainnet using Forge.
- Developed a decentralized application (dAPP) leveraging Go for backend processes, while utilizing modular vanilla JavaScript, HTML, and CSS for frontend functionality.
- Facilitated Metamask-compatible integration for seamless user authentication and NFT minting.

04/2025 – 05/2025 ZK-SNARK / RISC Zero MVP Integration (Solidity + Forge + Rust), Catalyte.io *Remote*

- Constructed a proof-of-concept integration that links Solidity smart contracts (Forge) with zk-SNARK proof generation through the RISC Zero SDK.
- Devised Rust-based zkVM guest methods to generate zk-proofs for smart contract interactions, targeting the riscv32im-risc0-zkvm-elf architecture.
- Investigated cross-language proof delivery workflows bridging Rust and Solidity, including techniques for manual proof serialization and contract verification interfaces.
- Drafted initial Solidity verification contracts to ensure on-chain validation of off-chain generated zk-proofs.
- Prototyped comprehensive Forge-based tests simulating end-to-end processes: proof generation, proof delivery, and contract verification.
- Navigated the intricacies of the RISC Zero SDK toolchain (cargo-risczero, rzup), effectively resolving early-stage SDK build pipeline challenges.

04/2022 – 04/2025 Go Ethereum Developer / Blockchain Architect (Golang), Pigfox LLC (Contract) *Remote*

- Developed an arbitrage trading bot utilizing Go, employing goroutines, multi-wallet management, ERC-20 swaps, on-chain data pipelines, and real-time Subgraph indexing, tested with 37,425,000 token comparisons per request cycle.
- Engineered a Cosmos-SDK extension to integrate AI models for error detection and resolution in smart contracts.
- Oversaw the Solidity contract lifecycle through Dockerized ABI generation, Forge deployments, and contract verification pipelines.
- Created nft-prayers.org, an API-driven NFT minting factory utilizing Polygon Go routines, email notifications, and payment gateways.
- Constructed a Supabase-backed automotive parts trading platform using Python.

01/2021 – 04/2022 Go Developer @ nomihealth.com (Golang), nomihealth.com *Remote*

- Contributed to backend development utilizing the Go serverless framework AWS.
- Established rules for invoice adjudication, while implementing unit and integration tests.
- Involved AWS Lambda, DynamoDB, API Gateway, and S3 for infrastructure support.

11/2020 – 01/2021 Go Developer @ aspiration.com (Golang), aspiration.com *Remote*

- Developed a caching system in Go utilizing CircleCI for continuous integration.

01/2020 – 11/2020 Senior Software Developer, dyl.com *Remote*

- Constructed an ETL pipeline and gRPC API endpoints using GoSwagger 2 (OpenAPI 2.0), Postgres, Docker, Kubernetes, Kibana, and Cassandra for CI/CD in distributed systems.

- Authored shell scripts for automated Docker builds and deployments to Kubernetes, including unit tests for applications running on GCP.
- Mentored a junior developer to enhance team productivity.

10/2019 – 10/2020 Senior Software Developer, Pigfox LLC *Remote*

- Executed consulting projects with a startup firm in LA, maintaining MySQL databases while developing ETL pipelines and data analysis tools in Go that utilize both SQL and NoSQL databases.

03/2019 – 08/2019 Senior Go Software Developer and Architect, metals.com *Remote*

- Reverse engineered a call loop to develop a Single Page Application (SPA) with a RESTful API backend in Golang for user registration, login, and CRUD operations for groups and broadcasts, incorporating JWT for authentication.
- Utilized goroutines to efficiently target the Twilio API for concurrent SMS message delivery.
- Leveraged goroutines for conducting background database statistics.
- Implemented JSON for data transfer between the backend and front end, built in Vue.js.
- Integrated RabbitMQ for messaging operations.
- Facilitated CSV contacts imports into AWS AuroraDB, processing 732,432 rows within 60 seconds.
- Evaluated Kafka for potential use in asynchronous messaging.
- Employed Amazon State Language (ASL) for managing AWS Lambda step functions within workflows.
- Executed conversion of in-house data to/from OData v4.0 using Golang in JSON and XML.

01/2014 – 03/2019 Senior Software Developer and Architect, PigFox LLC *Remote*

- Developed APIs using Golang and Redis for Wadswap LLC and fikzt.com, enhancing performance and scalability.
- Implemented SEO strategies for Tradesy.com utilizing Phalcon PHP, while also composing unit and integration tests with MySQL/Redis on Docker/Kubernetes using Jenkins for CI.
- Utilized the Java Play framework to create a registration site, as well as built a RESTful API for Evox Images employing Node.js and Knex.js, with Chai tests for validation.
- Constructed a location-based service platform for fikzt.com using Node.js while developing a RESTful API in Golang and a PhoneGapped mobile app for wadswap.com.
- Produced a deprecated site for nospy.email using Laravel, aimed at encrypting all emails with personal keys for end-to-end encryption.

06/2016 – 05/2018 MultiAPIController, flitways.com *Culver City*

- Architected the MultiAPIController for flitways.com, facilitating the seamless addition of more provider APIs.
- Applied geospatial calculations (latitude/longitude) to optimize car/customer location accommodation for ride bookings with Lyft, Uber, and various other transportation providers.
- Developed numerous internal RESTful APIs and utilized OAuth2 for authentication processes regarding API access.
- Created SaaS solutions tailored for a variety of transportation providers, effectively expanding the primary API into microservices.

03/2014 – 10/2014 Senior PHP Software Developer (Telecommuting), Securebuycommerce *Remote*

- Deployed and set up a Magento Ecommerce website accompanied by customized data solutions.
- Led UX/UI design efforts, coding and populating the site with products while overseeing all aspects, including front page and checkout page development.
- Engineered a complex/custom plugin that encrypted personal data during transactions with the Securebuycommerce fraud API; transactions failing verification were terminated.

02/2008 – 03/2014 Senior PHP/Python Software Developer, PigFox LLC *Remote*

- Optimized MySQL tables for bank XML file processing in a Homeowners Association (HOA) to decrease runtime from approximately 8 hours to just 17 minutes by eliminating intermediate steps; backend developed in Laravel.
- Implemented infinite scrolling mechanisms for JSI.
- Developed an Android application for Spotkast that facilitated user login to an API and allowed picture uploads, analogous to functionality found in Facebook.
- Constructed an API for clip uploads via iPhone to a now-defunct URL.
- Integrated Google Two-Factor Authentication on BTCFunds, a Bitcoin exchange, enhancing security measures.
- Designed models and deployed Memcache for Scriball's infrastructure.

- Developed an integrated banking system, administering credits for real dollars utilized by JSI, a SaaS company.
- Created a sophisticated search function akin to Google's for JSI.
- Built a custom database query caching system for enhanced performance, achieving approximately 33% speed enhancement.
- Developed Drupal 7 modules on Amazon EC2, integrating MongoDB with JSON using jQuery AJAX.
- Constructed a data analysis tool in Python.
- Configured the LAMP stack on an Amazon EC2 server via PuTTY.
- Utilized Knockout.js for a CMS with MongoDB architecture.
- Rewired the 'Pingtree' project for a now-defunct URL using Zend, methodologically integrating multiple lender APIs.
- Created a web scraper in Python.
- Leveraged Zend/Smarty/Ajax to build components for a specified portal.
- Employed CodeIgniter 2.0 to construct a Twilio phone administration system for Coalition Technologies.
- Utilized Mocha UI for internal scheduling, actualization, and timecard asset management applications at Ntropic, a digital asset management solution.
- Revamped an older site using MVC principles to allow for diverse skinning the Salary Calculator across multiple formats, employing PHP/MySQL/Smarty/Ajax frameworks.
- Engineered a prototype for the Opportunity Lens Project for RAD Corp—a data mapping visualization solution combining features of phpMyAdmin and cPanel using LAMP/AJAX/Smarty.
- Reverse engineered the instant messaging application of mocospace.com for fotochatter.com and developed numerous custom CMS solutions while enhancing existing functionalities for spiritclips.com.
- Authored the entirety of rentnetworx.com utilizing Kohana 3 framework.
- Crafted modules in Symfony for ticketrush.com.
- Configured and modified Magento skins for cosmetic improvements.

09/2007 – 02/2008 PHP Software Developer, eSpeed a division of Cantor & Fitzgerald *Century City*

- Refined and enhanced functionality on ppx.popsci.com, a virtual stock exchange platform.
- Redesigned ppx.popsci.com from a procedural application to a strictly PHP object-oriented structure.
- Created RSS and XML feeds for widgets on ppx.popsci.com.
- Authored SQL reports for identifying cheaters on ppx.popsci.com.

06/2007 – 08/2007 TekSystems Freelance @ AEG – PHP Software Developer, AEG *Los Angeles*

- Developed an object-oriented PHP 5 content management system for http://www.aeglive.com, outlining and extending base classes for effective data manipulation in MySQL.

06/2005 – 06/2007 PHP Software Developer, PigFox LLC (Own Business) *Remote*

- Served clients including Yeahthatcommercial.com, iMedia, and DigiLink while working from locations in Los Angeles and Santa Monica (telecommuting).
- Acted as a Senior Web Developer and Database Designer focused on PHP 4 & 5 and MySQL facilities.
- Created a member-driven site, allowing users to upload pictures, videos, and resume-type information, modeling functionality akin to Youtube.com and Myspace.com.
- Designed a frontend to manage secured login capabilities and multi-level user settings for an Asterisk open-source telephone system (site on restricted domain).
- Implemented Oscommerce on Lloydsofhollywood.com.
- Developed a click tracking and reporting system utilizing Web Services (XML) to integrate with Amazon.com.
- Established URL rewriting through .htaccess (mod_rewrite) to optimize search engine visibility.
- Designed custom CMSs that automatically adapted to changing database structures alongside another CMS for photo management.
- Constructed surveys, dynamic forms, databases, and dynamic queries.
- Executed a Business Process Management application with secure login over SSL, complete with dynamic tables and shared folders, managing user roles and email notifications for project progress.

03/2005 – 04/2005 PHP Software Developer, Juicewireless.com *New York*

- Served as a Senior Developer, crafting complex, data-driven wireless web applications.
- Responsible for database design and extensions within the database architecture.

- Generated pages enabling authenticated users to manipulate data and wrote dynamic forms equipped with error-catching scripts.
- Employed technologies such as CURL, XHTML, PHP 4.3.1, MySQL, JavaScript, and CSS.

11/2004 – 03/2005 PHP Software Developer, Eeminder.com *Remote*

- Engineered a robust, data-driven business web application.
- Collaborated on designing the database and extending it with additional schemas, implementing 15 tables within the database.
- Authored complex multiple queries featuring authenticated user login functionality, while writing sorted queries displayed across multiple pages, utilizing XHTML, OO PHP, MySQL, JavaScript, and CSS.

12/2003 – 11/2004 CTO, FunkyVenice.com *Los Angeles*

- Served as the Chief Architect and Designer, implementing the full scope of site.
- Integrated an off-the-shelf shopping cart into the platform.
- Utilized PHP, XHTML, frames, iframes, and CSS technologies throughout the project.

09/2003 – 12/2003 Java Developer, Naxcom.com *Los Angeles*

- Crafted queries for Oracle to display inventories of online shop items.
- Edited Struts for the navigation interface of the website.
- Employed Java, JSP, XML, and Struts to enhance web functionalities, while progressively building and evolving RESTful API via versioning.

EDUCATION

1996 – 1999 University of California at Los Angeles *Los Angeles*

BS, General Mathematics with specialization in computing

SKILLS

Go/Golang
NFT-minting factory
API Gateway
TypeScript
Web3 Game Development
Javascript
Metamask integration
Rust
Solidity verification contracts
Multi-wallet management
Subgraph indexing
Smart contract error detection
Docker
Email notifications
Supabase
Blockchain Architecture
ABI/bin/APIs generation
OO python3 car parts trading application
Invoice adjudication rules
Caching system
gRPC API endpoints
Postgres
Cassandra
GCP
SQL
Salesforce API integration
Database statistics
RESTful APIs
AWS Lambda
S3
Solidity
Forge
HTML
ZK-SNARK
zkVM
Arbitrage trading bot
ERC-20 swaps
Cosmos-SDK
Smart contract lifecycle management
NFT minting factory
Payment gateways
Automotive parts trading platform
DEX data ETL
Shell scripting
MDM
Unit testing
CircleCI
GoSwagger 2.0
Kubernetes
GitLab CI/CD
Data analysis tools
SPA development
CSV import
Vue.js
SMS app development
DynamoDB
Node.js
AI
Cast
CSS
RISC Zero SDK
Rust-based zkVM guest methods
Goroutines
On-chain data pipelines
AI models integration
Dockerized ABI generation
Polygon
Python
Go-Ethereum
Runtime gas calculations
ERC-721 token minting
Serverless framework
Integration testing
ETL pipeline
OpenAPI 2.0
Kibana
Automated Docker build
NoSQL
JWT authentication
Twilio API
RabbitMQ

AWS AuroraDB
AWS Lambda step functions
XML
SEO strategy
Jenkins CI/CD
Chai tests
Wadswap.com API
End-to-end encryption
Geospatial calculations
Uber API integration
SaaS solutions
Oracle RightNow platform
HR data solutions
CRUD API
Magento Ecommerce
Securebycommerce fraud API integration
Laravel backend
Spotkast API integration
Google two factor authentication
Bank system development
DB query caching system
MongoDB
Data analysis tool development
Knockout.js
Webscraper development
Internal scheduling application
Portal framework
Salary calculator turnkey solution
Opportunity Lens Prototype Project
Smarty templating
Spiritclips.com functionality
Symfony modules
Magento skin modification
3Cinteractive API implementation
PHP5 OO solution
SQL reports
Member driven site development
Multi-level user management
Click tracking system
Amazon.com store integration
Search engine optimization
Dynamic queries
Dynamic folders
CURL
Sorted queries display
Oracle 9i
RESTful API versioning
Kohana
Smarty Templates
jQuery
PHP 7
Weblogic
MSSQL 7
Solaris Sparcstation 20
Suse
C
Notepad++
MS SourceSafe
GIT
URL rewrite
Kafka
OData v4.0
Redis
Phalcon PHP
Java Play framework
Location based service platform
nospy.email
MultiAPIController
Lat/lon calculations
Transportation provider APIs
Microservices architecture
Website development
Educational data solutions
OPP Python
UX/UI design
ACH payments
Infinite scroll implementation
Picture upload functionality
Bitcoin exchange
Admin module development
Drupal 7 modules
JSON querying
LAMP stack installation
Pingtree project
Twilio phone admin system
Actualization application
Digital asset management system
MVC approach
Data mapping visualization solution
AJAX
Rentnetworx.com development
Ticketrush.com modules
Reporting tool development
ppx.popsci.com modifications
RSS feed generation
AEG Live CMS
Video streaming functionality
Asterisk telephone system integration
Reporting system
URL rewriting
Dynamic forms
Business Process Management app
Wireless Web application development
XHTML
OO PHP
Java
Symfony
CodeIgniter
Savant 3 Templates
DOM
XML/XSL
SOAP
Win NT/2K Pro
Red Hat
Ubuntu Linux
C++
Eclipse
Tortoise SVN Subversion
Google Adsense
gospider
Amazon State Language (ASL)
JSON
Fikzt.com API
MySQL
Knex.js
PhoneGap
Laravel
Provider APIs integration
Lyft API integration
OAuth2 authentication
Custom widgets
API development
Angular 1 admin module
Custom CMS
Custom plugin development
Bank XML file processing
Android app development
Clip upload API
Memcache implementation
Google like search implementation
Amazon EC2
jQuery AJAX
PuTTY
Rewiring Lender APIs integration
Mocha UI
Timecard asset management application
Web content management system
Skinning implementation
EAV implementation
fotochatter.com
Kohana 3 framework
Magento installation
TAPIOCA API implementation
ppx.popsci.com reengineering
XML feed generation
Data manipulation in MySQL
Secured login system
Oscommerce implementation
Web Services (XML) integration
mod_rewrite
Dynamic tables
Secure login over SSL
Authenticated user data editing
Complex multiple queries
Struts
JSP
Zend
CakePhp
X/D/HTML
Responsive design
Apache
MySql 5 stored procedures
SUN Solaris 6.02
Mandrake
Bash
Ultra Edit
Navicat
Perforce
Google Webmaster
Ahrefs

Semrush
WooCommerce
Wordpress
MatLab
AIM
LAMP installation
Remix
Ganache
Data Architecture
WASM/Web Assembly
Bitbucket
Practical Byzantine Fault Tolerance
Mentor
Leadership
Screaming Frog
X-Cart
HTMX
Mathematica
R53 load balancer
Authorize.net
Hardhat/Typescript
Jenkins
Data Analytic
GitHub
SAST
ECC
Clear communication
Distributed systems
Magento
osCommerce
Expression Engine
EC2 security group configuration
SSL setup
PayPal
Truffle
Data Visualization
Jira
Gitlab
DAST
Team leader
Collaborative problem-solving
Kafka

LANGUAGES

English

CERTIFICATES

Sun Certified Programmer for the Java 2 Platform 1.4 – Sun