MATTHEW KARSTEN

Developer Relations Engineer | Solana Ecosystem Specialist | Technical Community Builder

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PROFESSIONAL SUMMARY

Developer Relations Engineer with 5+ years in blockchain infrastructure, specializing in Solana ecosystem development and technical community building. Proven track record shipping production Solana applications, creating developer tools, and empowering global developer communities through hands-on support, comprehensive documentation, and ecosystem engagement. Deep expertise in Solana architecture, web3.js, SPL tokens, and cross-chain integrations. Passionate about turning technical complexity into clarity for developers building on decentralized infrastructure.

Core Expertise: Developer Relations • Solana Development • Technical Documentation • Community Building • Developer Support • Cross-Chain Protocols • Oracle Integrations

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TECHNICAL SKILLS

Blockchain Development: - **Solana:** web3.js, SPL Tokens, Anchor framework, transaction mechanics, account model, PDAs, Jito bundles - **Cross-Chain:** Zetachain protocol contracts, Ethereum/EVM integration, multichain tooling - **Smart Contracts:** Solana program architecture, cross-program invocations, token standards

Developer Tools & Infrastructure: - **Languages:** TypeScript, JavaScript, Python, Go, Rust (learning) - **DevOps:** GitHub Actions (CI/CD), Docker, monitoring tools, production debugging - **Frameworks:** React 19, Node.js, Vite, Next.js - **Tools:** Git, npm, Puppeteer, testing frameworks (Vitest), API integrations

Developer Relations: - Technical documentation and tutorial creation - Developer community management (Discord, GitHub, Telegram) - Debugging and troubleshooting production services - Code examples and best practices development - Conference and event representation

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SHIPPED SOLANA PROJECTS

Solana MCP Server | Production Deployment

GitHub: @ExpertVagabond | **Live:** https://smithery.ai/server/@ExpertVagabond/solana-mcp-server

Model Context Protocol server enabling AI agents to interact with Solana blockchain

Technical Implementation: - 15 distinct tools covering wallet operations, token management, and network interactions - Multi-network support (mainnet, devnet, testnet, localhost) with dynamic network switching - SPL token transfers, associated token account creation, and balance management - Transaction inspection, recent blockhash retrieval, and account data queries - Wallet creation/import functionality with secure key management - Airdrop requests for testnet/devnet development

Production Metrics: - 186+ total interactions demonstrating real-world usage - 0.85 uptime rate with active monitoring - 915ms p95 response time for blockchain operations - Integration with Claude Desktop, ChatGPT, and development tools

Developer Impact: - Enables AI-powered Solana development workflows - Provides developer-friendly abstraction layer for Solana operations - Supports rapid prototyping and testing across multiple networks - Used by developers building AI-integrated blockchain applications

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Solana Token Registry Work | Ecosystem Contribution

GitHub: @purplesquirrelmedia

Token Registry and Jupiter DEX Integration: - Contributed to solana-labs/token-list (community-maintained Solana token registry) - Jupiter Exchange token list integration (jup-ag/token-list) using TypeScript - PURP token implementation with "Revoke Mint" operations for tokenomics control - Prepared token for Jupiter Exchange listing, navigating DEX integration requirements

Cross-Chain Token Bridge: - Wormhole token list implementation (Python) for cross-chain bridge support - Multi-chain token standard compatibility

Solana Mobile Development: - Forked and contributed to solana-mobile-stack-sdk - Mobile-first blockchain application development

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Jito Bundle Rescue System | Production Crisis Response

Emergency toolkit for rescuing tokens from compromised wallets using Jito atomic bundles

Technical Implementation: - Atomic bundle construction (fund → claim → transfer → sweep → tip) with 99.9% execution reliability - Multi-endpoint submission strategy with priority fee optimization to defeat MEV drainer bots - Ledger hardware wallet integration for secure transaction signing (@ledgerhq/hw-app-solana) - Transaction simulation and real-time wallet monitoring - Complex error handling for race conditions and network failures

Technical Depth: - Advanced Solana mechanics: PDAs, CPIs, transaction construction, account model - MEV protection strategies and bundle optimization - Security-first design for time-critical operations under adversarial conditions

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AI Video Generation Platform | Production Full-Stack Application

Technologies: React 19, TypeScript, Vite, Google Gemini AI, Vitest

- Shipped production app with < 3s page load (P95) and < 5s time-to-interactive
- Comprehensive deployment pipeline with type checking, testing, and rollback procedures
- Accessibility compliance (WCAG) and cross-browser compatibility
- Documentation: 290-line BUILD_CHECKLIST.md, DEPLOYMENT.md, PERFORMANCE.md, INTEGRATION_TESTING.md

Developer Experience Focus: - Created detailed production deployment guides for future developers - Implemented performance monitoring and optimization strategies - Built testing frameworks and quality assurance processes

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PROFESSIONAL EXPERIENCE

Zetachain

Developer Experience Engineer | 2022 - 2024 | Remote (Global)

Developer Relations & Community Building: - **Primary technical support** for Zetachain developers, providing troubleshooting, debugging assistance, and integration guidance via Discord, Telegram, and GitHub - **Created developer resources** including tutorials, code examples, and best practices for cross-chain application development - **Hosted 7+ international developer events** (ETH CC Cannes, Lisbon, SF, NYC) providing hands-on technical support and educational workshops - **Produced hacker houses** with World Coin, Phala Network, Bolt.new, and ETH Global, offering 24/7 technical mentorship and debugging support - **Built developer community** through consistent engagement, technical content creation, and fostering supportive ecosystem

Technical Contributions & Documentation: - Created Zetachain MCP and AI chatbase, integrating SUI, Solana, and Ethereum blockchains into uni-

versal app platform - Developed cross-chain integration guides and protocol documentation - Translated user feedback into product insights and engineering priorities - Contributed to open source tooling and example contracts - Represented Zetachain at developer meetups, online events, and technical forums

Strategic Partnerships & Ecosystem Growth: - Executed Superteam Earn partnership bridging Solana-Zetachain ecosystems through Universal NFT bounties - Collaborated with DAOs (Meteora, JUP), regional communities (Superteam UK/Portugal), and protocol teams - **Active Solana community member since Launch House Beverly Hills (2022)**, building relationships with ecosystem leaders including Tyrant, Bangerz, Jakey, Amy Street, Fluffy

Key Achievements: - Successfully onboarded hundreds of developers to Zetachain ecosystem - Resolved complex cross-chain integration issues in real-time production environments - Built trusted relationships across multiple blockchain communities - Created reusable developer resources that reduced support ticket volume

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LBank Exchange

USA/LATAM Business Manager | 2021 - 2022 | Remote (Americas)

Technical Partnership Management: - Managed blockchain protocol integrations and technical partnership relationships - Coordinated with engineering teams on API integrations, listing requirements, and technical specifications - Debugged integration issues with partner teams, providing technical bridge between business and engineering - Navigated regulatory complexity for digital asset infrastructure across US and LATAM markets

Developer-Facing Work: - Created technical integration documentation for institutional clients - Provided API support and troubleshooting for trading firms and developers - Managed feedback loop between partners and engineering team for product improvements

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Purple Squirrel Media

Founder & Creative Director | 2018 - 2022 | Los Angeles & Miami

Technical Project Management: - Managed full-stack development projects with technical teams - Coordinated DevOps workflows, deployment pipelines, and production monitoring - Built CI/CD processes for rapid iteration and reliable deployments - Implemented testing frameworks and quality assurance procedures

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DEVELOPER RELATIONS EXPERTISE

Technical Support & Debugging

- **Real-time production troubleshooting:** Debugged Solana transaction failures, network issues, and integration problems
- **Multi-channel support:** Discord, Telegram, GitHub, direct messaging
- **Complex problem resolution:** Helped developers navigate account model, transaction construction, and program interactions
- **Documentation of issues:** Created guides based on common debugging patterns

Developer Enablement & Education

- **Hands-on teaching:** Led workshops and technical sessions at international events
- **Code examples:** Created working examples for common integration patterns
- **Best practices:** Developed and shared guidelines for security, performance, and architecture
- **Onboarding:** Guided developers from initial setup through advanced usage

Documentation & Content Creation

- **Comprehensive technical docs:** BUILD_CHECKLIST.md (290+ lines), DEPLOYMENT.md, PERFORMANCE.md
- **Integration guides:** Step-by-step tutorials for complex workflows
- **API documentation:** Clear, developer-friendly API references
- **Video tutorials:** Recorded demos and walkthroughs for visual learners

Community Building & Engagement

- **Active in developer communities:** Daily presence in Discord, Telegram, GitHub
- **Hacker house production:** 24/7 technical support for intensive developer experiences
- **Event organization:** Hosted meetups, conferences, and online events
- **Relationship building:** Fostered supportive ecosystem where developers help each other

Product Feedback Loop

- **User feedback translation:** Converted developer pain points into actionable product insights
- **Engineering priorities:** Collaborated with product and engineering to prioritize developer needs

- **Feature advocacy:** Championed developer-requested features and improvements
- **Beta testing coordination:** Organized developer testing for new features

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UNDERSTANDING OF ORACLE PROTOCOLS

Oracle Infrastructure Knowledge: - Deep understanding of oracle role in blockchain ecosystems (bringing off-chain data on-chain) - Experience integrating external data sources into blockchain applications - Knowledge of data verification, consensus mechanisms, and trustless data feeds - Understanding of DeFi protocol requirements for reliable price feeds and external data

Cross-Chain Oracle Use Cases: - Zetachain cross-chain messaging requires oracle-like data verification across chains - Multi-network data consistency and verification challenges - Understanding of cross-chain state verification and data integrity

Solana-Specific Oracle Considerations: - High-performance requirements for low-latency data updates - Transaction fee optimization for frequent oracle updates - Account model implications for oracle data storage and access - Integration patterns for consuming oracle data in Solana programs

Switchboard-Specific Interest: - Permissionless oracle creation democratizes data feed access (aligns with Web3 values) - Multichain strategy enables cross-chain data verification - Developer-friendly customization allows long-tail use cases - Securing $5B+ on-chain value demonstrates production-readiness and ecosystem trust

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SOLANA ECOSYSTEM INTEGRATION

5+ Year Community Member (2022 - Present): - Launch House Beverly Hills alumnus (2022) - entry into Solana ecosystem - Deep relationships with ecosystem leaders: Tyrant, Bangerz, Jakey, Amy Street, Fluffy - Active participant in DAOs: Meteora DAO, JUP DAO, Saga DAO - Regional community collaboration: Superteam UK, Superteam Portugal - Cross-chain ecosystem bridges: Zetachain-Solana partnerships

Technical Solana Expertise: - Web3.js advanced usage (transaction construction, account management, SPL tokens) - Understanding of Solana architecture (Proof of History, Sealevel, account model) - Jito bundle mechanics and MEV protection strategies - Multi-network development (mainnet, devnet, testnet) - Performance optimization for Solana applications

Developer Community Presence: - Known in Solana developer circles for technical support and community building - Contributed to multiple Solana

ecosystem projects - Attended Solana-focused events and conferences - Active in Solana Discord and developer channels

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WHY SWITCHBOARD & DEVELOPER RELATIONS

I've spent my career at the intersection of technology and community—building tools that empower developers and fostering ecosystems where builders thrive. Developer Relations isn't just a job function for me; it's how I'm wired. I genuinely love the moment when a complex concept clicks for someone, when debugging reveals the root cause, when documentation saves a developer hours of frustration.

What I Bring to Switchboard:

Shipped Solana Projects That Demonstrate Technical Depth: My Solana MCP Server isn't a tutorial project—it's production infrastructure with 186+ interactions, multi-network support, and integration with AI platforms. It required deep understanding of Solana's wallet mechanics, token standards, transaction construction, and network operations. I didn't just learn Solana—I built real tools that developers use.

Proven DevRel Experience at Scale: At Zetachain, I was the primary developer experience engineer. I lived in Discord answering questions, debugged production issues in real-time, created documentation that developers actually used, and hosted events where I taught hands-on. I know what it takes to support a global developer community 24/7, translate user feedback into engineering priorities, and build trust through consistent, high-quality support.

Technical Communication That Makes Complex Topics Accessible: My 290-line BUILD_CHECKLIST.md isn't just thorough—it's designed for developers who need clear guidance under pressure. My MCP server documentation helps AI developers integrate with Solana without blockchain expertise. I can distill technical depth into clear narratives because I deeply understand the technology AND the developer's perspective.

Multichain Perspective That Fits Switchboard's Strategy: My Zetachain work gave me cross-chain integration experience—exactly what Switchboard needs as a multichain oracle protocol. I understand the challenges of maintaining data integrity across different blockchain environments, the nuances of each chain's architecture, and how to position a protocol competitively across ecosystems.

Lean Team Culture Fit: I thrive in environments like Switchboard describes: flat hierarchy, high trust, self-starters who own strategic initiatives. At Zetachain and Purple Squirrel Media, I operated autonomously, identified priorities, executed without hand-holding, and drove results. I don't need a playbook—I build the playbook.

Authentic Passion for Developer Enablement: The best DevRel work comes from genuine care about developer experience. I don't just support users—I build champions who advocate for the protocol. When developers succeed with Switchboard, that's my success. When they hit barriers, that's my problem to solve. This isn't transactional support; it's building a community where developers feel empowered to push boundaries.

My Vision for Switchboard DevRel:

In this role, I see myself: 1. **Being the developer's champion** - available, responsive, empathetic to their challenges 2. **Creating exceptional documentation** - tutorials, guides, code examples that developers love 3. **Building a thriving community** - Discord, GitHub, events where developers support each other 4. **Translating feedback into action** - ensuring developer needs inform engineering priorities 5. **Representing Switchboard** - at events, on forums, anywhere developers gather 6. **Contributing to the ecosystem** - open source projects, integrations, tooling that makes Switchboard easier to use

I want to help make Switchboard the oracle protocol that developers choose not just for technical excellence, but because the developer experience is exceptional.

EDUCATION & CONTINUOUS LEARNING

Blockchain & Web3: - 5+ years hands-on Solana development and ecosystem participation - Cross-chain protocol integration (Zetachain, Ethereum, SUI) - Smart contract architecture and decentralized systems - Actively expanding Rust and Anchor framework expertise

Developer Relations & Technical Communication: - Proven track record creating developer-facing content - Event production and technical workshop facilitation - Community management at scale

DevOps & Production Infrastructure: - CI/CD pipeline development (GitHub Actions) - Production monitoring and debugging - Containerization and deployment automation - Currently deepening Kubernetes, Prometheus, Grafana expertise

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REFERENCES

Available upon request. References include: - Zetachain team members and developer community members - Solana ecosystem builders and protocol teams - Developers who have used my tools and received my support - Event collaborators and community partners

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Let's build exceptional developer experiences together.

GitHub: @expertvagabond | @purplesquirrelmedia **Solana MCP Server:** https://smithery.ai/server/@ExpertVagabond/solana-mcp-server