Son Nguyen

Hà Nội, Hanoi, Vietnam · 25+ years of experience

Interested in Backend, Devops, Android and Embedded systems roles.

About

Senior backend and systems engineer specializing in networking, security, and distributed systems.

Work

Senior Backend / Systems Engineer – Freelancer

Jan 2009 – Present

Independent systems-focused software engineer with 25+ years of hands-on experience in networking, security, and low-level infrastructure.

I have designed, built, and operated production-grade networked applications end-to-end: VPN/proxy systems (OpenVPN, WireGuard, HTTP/SOCKS, TLS/SNI), domain-fronting, mobile networking stacks, and backend services under real ISP and platform constraints, used by real users worldwide: https://sourceforge.net/projects/vpn-4g-ssl-tls-sni-vpngate

Experienced in protocol behavior at the packet level, debugging production traffic, and modifying large open-source tunneling codebases. I've implemented cryptographic algorithms from scratch for validation, and use established crypto libraries in production with a clear understanding of their guarantees and failure modes.

Comfortable with C/C++, Go, Java, Linux internals, deep debugging, and fully remote, self-directed work.

Résumé: https://puzzle-cam.sourceforge.io/cv-HN-v2-26.pdf

Technical Staff – VNPT

Feb 2003 – Jul 2008

Led colleagues in implementing new technology projects for major events such as the Mainstream ATM/SDH backbone for the ASEAN Games. Worked on rural mobile IPAS CityPhone networks and followed through to operations and maintenance.

Programmer / Architect / Project Leader – Fujitsu Computer Systems Vietnam

Apr 1999 – Jan 2002

Key technical contributor responsible for presales architecture, presentations, pilots, and delivery of multiple government and public-sector projects, including supermarket POS/accounting systems, national computerization and filing systems, backbone networks, and banking IVR solutions.

System Administrator / Solution Architect – RIM

Jun 1998 – Mar 1999

Executed system implementations and application analysis for outsourcing clients.

Presales / System Administrator – UniCorp Industries

Mar 1997 – May 1998

Enterprise solution architect for Windows NT, Exchange Server, Cisco networking, and Microsoft BackOffice. Delivered implementations, pilots, training, and on-site support for enterprise clients.

Computer Specialist – CAAV

Mar 1996 – Feb 1997

Developed warehouse management software, embedded Intel 8751-based peripheral alarm systems, and RS-485 messaging systems.

Principal Engineer – FPT Service Center

Jun 1995 – Jan 1996

Hardware service and repair for UPS systems, printers, and PC boards.

Education

- **Master of Engineering (ME), Electrical Engineering & Computer Science** – Hanoi University of Science & Technology, 1998

- **Bachelor of Engineering (BE), Electrical Engineering & Computer Science** – Hanoi University of Science & Technology, 1995

Certifications

- Microsoft Certified Professional – Systems Engineering (1998)
- Microsoft Certified Professional – Systems Analyst (1999)
- Microsoft Certified Professional – Software Engineering (1999)

Skills

C (advanced), C++ (advanced), Go (advanced), Java (advanced), Linux (advanced), Cryptography (intermediate), Docker (intermediate), Git (intermediate), Kotlin (intermediate), OpenCV (beginner)

Preferences

- Only open to remote work
- Not authorized to work in the US / visa sponsorship required

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What I'm looking for

I'm looking for a senior backend or systems role where I can work on technically challenging problems—especially in networking, security, distributed systems, or core infrastructure. I enjoy roles with real ownership, clear problem statements, and a strong engineering culture that values correctness, simplicity, and pragmatism over hype.

I work best with small, experienced teams, asynchronous communication, and a focus on code quality, testing, and production reliability. I value environments where engineers are trusted to make technical decisions and where performance, scalability, and security matter.

I'd like to avoid roles that are primarily CRUD or UI-focused, excessive bureaucracy, unclear ownership, or teams that prioritize process and buzzwords over engineering fundamentals.

Project Highlight

One project I'm particularly proud of involved deeply customizing and adapting large, mature open-source codebases such as Psiphon and VPNGate-based Android clients to meet specific real-world network constraints. Rather than building everything from

scratch, the challenge was understanding, modifying, and stabilizing complex systems that were never designed for my exact use case.

My work focused on analyzing networking and transport layers, identifying where assumptions about routing, DNS resolution, SNI handling, domain-fronting evasion, and connection lifecycles broke down under certain ISP environments. I selectively modified and extended existing code to expose a local proxy interface, control traffic routing, and reduce overhead while maintaining compatibility with upstream components.

This required reasoning about a large, unfamiliar codebase, tracing data flow across modules and languages, and making targeted changes without destabilizing the system. I also handled testing across different networks, tuned connection behavior under high concurrency, and packaged the result into a usable Android application.

The final result worked reliably where stock configurations failed, gained organic users, and was actively downloaded and reused by others. This project reinforced my approach to working inside large systems, making minimal but high-impact changes, and taking full ownership of reliability and outcomes.

In parallel, I occasionally built small standalone cryptographic examples (e.g., ElGamal) while mentoring junior developers and students, mainly to illustrate fundamentals that are usually hidden behind libraries. This was not research-oriented work nor intended for production use, but a practical way to validate assumptions, reason about data representation and edge cases, and explain security concepts clearly.

Company Preferences

Open to any company size. Prefer small teams (1–10, 11–50 people).