

Biguo Xin - Rust/EVM/Golang/Full stack engineer



 Arctic Code Vault Contributor

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Education

Heilongjiang University — B.Sc. in Mathematics and Applied Mathematics (2010–2015)

Tech Arsenal

 Rust 5 yrs  Golang 8 yrs  EVM 4 yrs  RAG 4 yrs

Professional Experience

5. Deeper Network — Full-Stack Engineer / Tech Lead (2021.10 — present)

- Helium project lead (Erlang): optimized node signal handling, network transport and block synchronization.

- Transparent proxy (Golang): https/http transparent proxy with TLS interception, traffic forwarding, content filtering/modification, embedded JavaScript engine and support for Surge modules.
- Deeper Machine (Rust): distributed edge computing platform — EVM-based smart-contract scheduling, task distribution and node management; Docker-based edge nodes.
- Deeper Network VPN (Golang): cross-platform clients (iOS, Android, Windows, macOS, Linux); gVisor-based traffic interception and relay, a Clash-like rule engine, tunnel-based DNS to avoid pollution, NAT traversal P2P tunnels with UDP/TCP support, ad-blocking and content filtering features.
- Deeper GPT (Python): RAG-based knowledge Q&A system with document chunking, vector storage & retrieval, and LLM-driven QA; automated ingestion of support chats into the knowledge base.

4. Chenwu Technology — CTO (2020.08 — 2021.06)

- tox + Rust distributed communication: P2P covert communication and transport.
- Tokio + Rust communication framework: codec/frame/session/router layers; audio-based JSON/binary transfer and driver adaptation for HiSilicon chips to support low-power long-lived Bluetooth connections.
- Signal processing / data hiding: FFT/IFFT operators for watermarking, optimized for Armv8 (SIMD) and NVIDIA GPUs (CUDA).

3. Wuhan University — Full-Stack Engineer, Big Data Research Institute (2018.08 — 2020.08)

- Data migration & graph projects: pipeline from MySQL → RDF → graph databases (e.g., Neo4j); implemented graph algorithms and business query APIs using SPARQL to compute indegree/outdegree, density, distance, circles, etc.
- Frontend visualization: D3.js and ECharts-based graph visualizations.

2. YueRanXinDong — Backend Engineer (2017.08 — 2018.04)

- Node/Express backends and async workflow management; integrations with Go and Python microservices; DynamoDB interaction and deployments on Lambda/ELB/containers.
- Gin + Go backend for social apps: GORM/Postgres integration, PostGIS for geospatial queries, Jenkins-based CI/CD.

1. HangbanGuanjia — Frontend Engineer (2016.05 — 2017.07)

- Single-page application built on Mithril: routing, state management, session restore and complex interactive components.
- Maintained company GitLab and GitLab CI (upgrades, debugging, migrations).

- Server-side rendering and API gateway with Express/Node: JS/CSS bundling, request tracing and caching; dynamic module loading and TypeScript compilation pipelines.

Skills

Rust

- Comfortable with Tokio and asynchronous/futures programming
- Experience designing codecs, frames, middleware and routers
- EVM smart contract development experience
- Cryptography-related implementations and practical usage
- FFI with C/C++ (bindgen) and CPU-level optimizations (SIMD, inline assembly)

Golang

- Skilled with Gin, Beego and common HTTP middleware patterns
- Built CLI tools (tui-go, go-prompt) and cross-platform binaries
- Deep understanding of slices, goroutines, channels and interfaces
- Debugging goroutine leaks and channel deadlocks; profiling and benchmarks
- Integration with SQL/NoSQL (Postgres, MySQL, DynamoDB)
- Low-level networking (TCP/UDP/HTTP/TLS) and mobile cross-compilation

Transformers / ML

- Familiar with Hugging Face Transformers, BERT, ResNet and other models
- Data preprocessing, augmentation, hyperparameter tuning and evaluation
- Model pruning, quantization and serving as APIs

HTML / CSS / SCSS

- Semantic HTML, responsive layout, CSS architecture and cross-browser fixes

JavaScript (browser)

- Native DOM/API expertise and experience with React/Vue/Mithril
- Knowledge of WebAssembly and browser performance optimizations

JavaScript (Node.js)

- Experienced with Express, Koa and server-side middleware patterns

- Comfortable with streams, async control flow and event loop internals

Other languages & tools

Rust

Golang

Python

TypeScript

Transformers

Reason

Julia

Projects (side / personal)

- [fishpond](#): Python & web-WeChat chat assistant — message sentiment analysis, automated replies and statistics.
- [gesture](#): OpenCV & Python gesture recognition for mouse control (move, click, zoom).
- [xinge](#): Go library for Tencent Xinge push (officially adopted).
- [HelloGitHub2zhihu](#): Puppeteer automation to sync starred GitHub repos to Zhihu articles.
- [wowAutoFishing](#): OpenCV + PyAudio script to automate fishing in World of Warcraft by detecting bobber splash sounds and position.
- [rock](#): Rust full-stack blog system (frontend: Rust+WASM, backend: actix-web).
- [pm](#): Process manager in Go (similar to pm2).

Age

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- Semantic HTML, responsive layout, CSS architecture and cross-browser fixes