

Yupeng Lu

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AI Agent & Backend Engineer

SUMMARY

Build production systems in TypeScript/Node.js, Python, and Java, spanning agent tool use and streaming execution, real-time voice, billing, automated testing, and cloud operations.

EXPERIENCE

Baidu - Software Engineer, MeDo

Jul 2026 – Present · Beijing

- Led overseas billing service and database separation; defined subscription, order, ledger, and payment-event boundaries, with migration, cutover, rollback, and production verification.
- Contributed to Supabase backend design and integration: agent tools, schema changes, function deployment, development/production isolation, instance lifecycle, resource quotas, and billing.
- Fixed missing paid entitlements and late events reviving canceled subscriptions through event idempotency, terminal-state checks, and retries. Designed migration checks using a baseline of 6,750,000 historical ledger entries.
- Traced a sandbox-mining cluster outage to CPU overcommit using node, process, and resource data; removed abusive workloads and restored available capacity.

Cookiy AI - AI Agent Engineer

Aug 2025 – Jul 2026 · Silicon Valley HQ / Beijing Engineering Team

- Developed research/report agents with task-scoped tools, evidence loading before edits, and batch analysis, synthesis, and validation to constrain factual drift.
- Owned MCP tools and public APIs with consistent validation, authentication, pagination, and task status; built a TypeScript CLI for external agents.
- Hardened SSE/WebSocket/MCP tasks with heartbeats, timeouts, cancellation, cleanup, and run IDs. Built web and CLI/MCP end-to-end tests covering results, content, duration, and production regressions.
- Built real-time voice interviews and report Q&A with LiveKit, speech recognition, streaming TTS, interruptions, and follow-up turn handling.

SMU - Software Engineer

Feb 2024 – Jan 2026 · Los Angeles

- Built Python AsyncIO order/inventory synchronization across Amazon, Shopify, and ERP using Redis, Kafka, and batched SQL. Independently built and operated GetDateLove with FastAPI/PostgreSQL, WebSocket, payments, AWS, Playwright, and CI release checks.

Huawei Technologies - Software Engineer, SPU Development

Apr 2023 – Feb 2024 · Beijing

- Developed NE40E traffic statistics and NetStream in C/C++; investigated packet processing, flow logs, URL parsing, and HTTP headers.

PROJECTS

Live Trading System - Co-Developer

Apr 2026 – Present · Concurrent project

- Built Python trade execution with fill deduplication, a persistent ledger, and startup broker reconciliation. Diagnosed SQLite write-lock contention; maintained AWS deployment, monitoring, and SSM-managed access and secrets.

SKILLS

Backend and data: TypeScript/Node.js, Python (AsyncIO/FastAPI), Java/Spring Boot, C/C++; MySQL, PostgreSQL, Redis, SQLite, Kafka.

Agents, infrastructure, and testing: MCP, OpenAI/Gemini, SSE/WebSocket, LiveKit; Linux, Docker, Kubernetes, AWS; Playwright, API/CLI end-to-end testing, CI/CD, log correlation and performance analysis.

EDUCATION

Boston University - M.S. Mathematical Finance & FinTech

GPA 3.78

The Ohio State University - B.A. Physics

GPA 3.84

PUBLIC WORK

[Cookiy TypeScript CLI](#) · [User Research Agent Integration](#)