

Hupeng Hu

FULL-STACK SOFTWARE ENGINEER

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Education

Georgia Institute of Technology

M.S. IN COMPUTER SCIENCE

Atlanta, GA

Jan. 2024 – Dec. 2025

- GPA: 4.0
- Relevant coursework: Standard Development Process, Deep Learning, Machine Learning, Machine Learning for Trading, NLP, Game AI, Distributed Computing, Introduction to Graduate Algorithms

WISE, Xiamen University

B.C. IN ECONOMICS

Xiamen, China

- Relevant coursework: Probability, Linear Algebra, Calculus, Analysis of Financial Time Series

Department of Communication and Journalism, Xiamen University

B.A. IN JOURNALISM

Xiamen, China

Sept. 2012 – Jun. 2016

Work Experience

ByteDance

San Jose, CA, USA

FULL-STACK SOFTWARE ENGINEER

Aug. 2024 – Aug. 2025

- **Environment & Stack:** React 18, TypeScript, **Python, Go, SQL (MySQL), Kafka, Linux**, Jest, Vite.
- Engineered high-concurrency handover automation scripts using **Python multi-threading and database locking**, eliminating race conditions on ticket status changes and slashing latency from **1 min → 40 ms**.
- Architected an event-driven analytics pipeline using **Kafka** to stream real-time data from **MySQL** to third-party data warehouses, enabling granular data processing for engineering metrics.
- Hardened the distributed microservices layer (Go/Thrift/RocketMQ) by implementing circuit-breaking patterns and diagnose and resolve complex integration bottlenecks on linux systems.
- Redesigned state management with MobX (normalization, memoized selectors), cutting **LCP by 40%** and reducing redundant polling by **60%** via interaction-driven fetches.
- Implemented route-level code splitting and long-list virtualization (10k+ rows) to ensure UI scalability for heavy internal engineering tools.

RingCentral

Belmont, CA / Fort Lauderdale, FL /

Xiamen, China

Oct. 2017 – Aug. 2024

SENIOR SOFTWARE ENGINEER

- **Environment & Stack: Node.js, MongoDB, Elasticsearch, AWS**, TypeScript, Vue 3, Jenkins, Docker.
- Developed the high-performance message search service for the Jupiter platform using **Elasticsearch**, designing efficient query structures to enable full-text retrieval across large-scale user datasets.
- Architected the backend for a cross-team feedback management system using **Node.js** and **MongoDB**, designing scalable data schemas to support engineering triage workflows.
- Engineered server-side services on **AWS** to handle high-volume email campaigning and user data tracking, ensuring reliable event ingestion and data consistency.
- Led the full-stack optimization of core Messaging interfaces, achieving a **~30%** runtime boost by virtualizing lists and optimizing **GraphQL/REST** data fetching strategies.
- Strengthened the CI/CD infrastructure on Jenkins + AWS, implementing automated artifact versioning and rollout checks to reduce deployment failures
- Refactored legacy monoliths into micro-frontends (Module Federation), decoupling release cycles to allow distributed teams to ship independent updates.
- Mentored engineers on TypeScript patterns and system design; standardized development practices to improve code maintainability across squads.

Open Source Commitment

- Vuejs/jsx-next Official jsx support for Vue 3.0
- VueComponent/ant-design-vue
- Vuejs/Vue-doc

Skills

PROGRAMMING LANGUAGES

- Python, TypeScript, JavaScript, HTML5, CSS3, Node.js, Go, Java, C

SOFTWARE DEVELOPMENT TOOLS

- Git, GitHub, Visual Studio Code, Sentry, Jira, Stack Overflow, Webpack, Vite, React, Vue, Angular, Jest, Cypress