Fang Liu

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Skills

Programming Languages: Python, Java, Go, C, JavaScript
Web Development: React.js, Node.js, Express.js, HTML/CSS
Databases: MongoDB, DynamoDB, MySQL, Redis
DevOps: AWS, Docker, Terraform, Git, Kafka, Grafana

Education

Master's Degree in Computer Science

Northeastern University   Expected Apr 2026
Key Courses: Scalable Distributed Systems, Web Development, Database Management Systems

Bachelor's Degree in Marine Technology

Hebei University of Technology   Jun 2021
Awards: Outstanding Graduate Award, Academic Excellence Scholarship

Projects

Real-Time Financial Asset Price Aggregation Platform

- Engineered a high-performance distributed system in Go to aggregate real-time price data for 1000+ financial assets, achieving 49ms P99 latency and 8067 requests per second throughput.
- Designed a tiered caching strategy with Redis and circuit breaker for fault tolerance, deployed on AWS using Terraform and Docker.
- Implemented CQRS, DynamoDB for storage, with Prometheus and Grafana for real-time monitoring.

AI Mood Companion

- Developed journal and mood tracking with MERN stack, implementing RESTful APIs and CRUD operations.
- Integrated Google Cloud NLP for emotion analysis, creating filtering features and Chart.js visualizations.
- Designed real-time community features with bidirectional voting functionality and responsive React UI.
- Recovered Git branch and implemented Auth0 + JWT authentication within 12 hours to meet deadline.

Facebook Marketplace Scraper

- Developed an automated web scraper using Python, Selenium, and BeautifulSoup that bypasses anti-scraping mechanisms by simulating human-like behavior.
- Automated data filtering for car dealership, increasing lead processing efficiency by 60%.

Work Experience

Programming Fundamentals Teaching Assistant

Northeastern University   Sep 2024 – Dec 2024

- Mentored 50+ students in Python-based assignments, enhancing mastery of data structures (e.g., binary trees, hash tables) through tailored code reviews.
- Enhanced student performance by 20% through interactive debugging sessions on recursion and dynamic programming.

Product Manager

FanShi (AI-driven medical technology company)   Jul 2021 – Dec 2023

- Collaborated with engineering teams on hospital management and AI diagnostic tools, aligning product requirements with market needs.
- Used SQL and Python to analyze product usage data, driving a 15% increase in feature adoption.
- Conducted User Acceptance Testing, resolving 30+ technical issues, improving product stability and user satisfaction.