

FENGYI ZHANG

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EDUCATION

University of Illinois Urbana-Champaign

Dec. 2024 (*Expected*)

Master of Computer Science

Grainger College of Engineering

Shandong University

Sept. 2017 - Jun. 2021

Bachelor of Engineering in Computer Science and Technology

Relevant Coursework: Data Structure & Algorithm, Computer Networks, Database Systems, Operating Systems

TECHNICAL SKILLS

Programming: Go, C/C++/C#, Python, PHP, Java, JavaScript, Solidity, SQL, MQL, Cipher, Thrift, Shell

Frameworks/SDKs: Gin, GORM, gRPC, React/Native, .Net, SignalR, CodeIgniter, Tensorflow, MeTA, Scikit, Ethers.js

Software/Platforms: Git, Node.js, MySQL, MongoDB, Apache, Nginx, Pulsar, Redis, Consul, Postman, Swagger, Jmeter, Jenkins, Azure, AWS, GCP, Firebase, Docker, Unity, Wireshark, Expo, Hardhat, Metamask, MATLAB

PROFESSIONAL EXPERIENCE

Microsoft

Jan. 2022 – Aug. 2022

Software Engineer, Suzhou, China

- Designed and implemented a seamless PC-Phone pairing flow via QR/Accessibility code with 8 RESTful APIs and .Net Framework, increasing completion rate during Windows OOBE from 28.3% to 35.4%.
- Reduced server and database pressure by employing microservice architecture, asynchronous programming, caching, websockets, long polling, and API throttling, achieving a 97% API success rate at 720 RPS.
- Built account-based cryptographic trust relationships between PCs and phones by leveraging JWT encryption on certificate, device, and account information to ensure secure data transportation and verification.
- Improved service reliability and availability by adding over 2,000 lines of unit/functional/end-to-end/load tests and metric telemetry for anomaly detection, analytics, and troubleshooting.

Didi Global

Jul. 2021 – Dec. 2021

Software Development Engineer, Beijing, China

- Refactored 6 APIs of Point of Interest (POI) service that serves 15 million users per day from PHP to Go, among which CPU idle time improved to 73%(36% BEF) and TP99 latency reduced by 51% given QPS of 2000
- Divided business process into pluggable modules with inner workflow engine and replaced 8 RESTful APIs with Didi RPC (DiRPC) protocol with Service Discovery (DiSF) components for better SOA governance
- Applied A/B testing to realize canary deployment, configuration synchronization and strategy experiment, and employed metrics components to trace logs generated during service context for trouble shooting
- Managed online metric alarms (error ratio, latency etc.) of over 22 APIs and 16 downstream services while on-call

Alibaba Cloud

Jul. 2020 – Sept. 2020

Software Engineer Intern, Hangzhou, China

- Chaired project of route traceback based on by-pass sniffing for SLA monitoring and network fault location
- Constructed spoofed source VIP packet sequences with increasing TTL fields to specific endpoint using Scapy
- Employed traffic mirroring service for packets capturing and asynchronous I/O with call-back filtering function
- Delivered on Advanced Anti-DDoS clusters while being elastically extendable via configuration files

ACADEMIC PROJECTS

Intelligent Autonomous Vehicle

Fall 2017 – Summer 2019

Collaborated in a team of two to build an compact autonomous vehicle

- Constructed an automatic car capable of performing cruise, avoidance, and target tracking in a specific area.
- Programmed on ARM-based microcontrollers in C to drive the engines, cameras, and various sensors
- Applied traditional filtering methods for image segmentation and deep learning techniques for object recognition
- Implemented fuzzy PID controller and optimized it with separate integral and well-tuned parameters
- Achieved smooth beacon chasing with speed up to 3 m/s while flexibly avoiding crushing on obstacles