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

Sparse Multimodal Sequential Learning Toward Micro-Video Understanding   Mar. 2021 – May 2021
Dissertation
- Presented a multimodal sequential learning model with sparse coding on a micro-video classification task
- Utilized 3 parallel LSTMs to capture sequential features and applied dictionary learning for sparse representation
- Carried out controlled experiments on 20,000 samples and 22 labels with 3 other advanced baselines
- Outperformed any other baselines by an average increase of 45.9% on Micro-F and 53.3% on accuracy