PUFAN ZUO

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EDUCATION

Northeastern University (985/211 Project, Double First-Class)   *Sep 2022 - Jul 2026*
B.S. in Computer Science and Technology   *China*
Core Courses:
C++ Programming(A/92), Data Structures(A/90), Network Fundamentals(A/91), Cybersecurity(A/92)

RESEARCH INTERESTS

AI and Software Security: Software Security, Trustworthy AI, Deep Learning, AGI, Big Data Analytics, Interpretable Machine Learning, ETL, Data Lakehouse

Systems Security: Computer Systems Security, Privacy-preserving Data Systems, Machine Learning for Systems, Cloud Database, Graph Processing, Vector Database, Intelligent Data Systems, Distributed OLTP/OLAP, Query Optimization

PROFESSIONAL EXPERIENCE

Beijing Xingshi Zongheng Technology Co., Ltd (CelerData Inc.)   *Feb 2025 - Present*
Technical Ecological Construction Engineer   *Beijing, China*

· Designed ecosystem-specific data integration solutions with kernel-level optimizations for StarRocks database engine
· Led Apache Arrow & RPC framework integration achieving $20\times$ general query speedup (peak $160\times$), with open-source contributions : github.com/StarRocks/starrocks/pull/57956
· Developed official BI connectors: StarRocks Tableau JDBC Connector and dbt-starrocks adapter

Beijing Dajia Internet Information Technology Co., Ltd (Kuaishou)   *Aug 2024 - Oct 2024*
R&d performance platform intern   *Beijing, China*

· Contributed to the development of KDev, Kuaishou's in-house API testing platform, including task scheduling for KAPI (Kuaishou's internal API platform) to support automated data migration between versions and the cleanup of empty directories generated by the platform.
· Participated in the design of the HTTP API Swagger parsing framework, enabling the parsing of Swagger 3.0 specifications via OpenAPI to extract low-level data types and enumerated values.
· Implemented support for file upload types in the API mocking and proxy forwarding module, and introduced dynamic Kconf configuration with upload size limits of up to 200MB.

Beijing Sankuai Network Technology Co., Ltd (Meituan)   *Jun 2024 - Aug 2024*
Java Software Development Intern Development Internship   *Beijing, China*

· Participated in the foundational development of Strategy Analysis Tool 2.0, a Meituan in-house ToB platform for business strategy evaluation and optimization.
· Utilized Lion, Meituan's distributed configuration management system, to dynamically adjust the UI layout of the 1.0 version and conduct A/B testing for strategy optimization, comparing different matching strategies across adjacent data slices to improve overall service quality.
· Mitigated the risk of large-scale data growth (250GB per table) by implementing sharding and tiered storage using MySQL for hot data and Blade (an internal storage system built on TiDB) for cold data management.

TutorEva   Jan 2024 - Mar 2024
Algorithm Engineer, Mathematical Reasoning   Beijing, China

- Developed syntax parsing and semantic mapping algorithms for middle and high school mathematical expressions, enabling accurate interpretation and transformation of mathematical formulas.
- Improved and optimized the core framework and underlying algorithms for symbolic algebra computation, enhancing the system's accuracy, performance, and extensibility.
- Participated in the design and implementation of an automated problem-solving and logical reasoning framework based on Drools.

Yonyou   Nov 2023 - Jan 2024
Chanjet Team R&D, DevOps   Beijing, China

- Participate in the quality assurance tasks of the marketing system, participate in project requirements review, write complete test cases and conduct testing.
- Read the source code of project, find and submit potential defects and loopholes, and assist the RD team in solving project BUG.
- Participate in the development of automated api testing framework and improve the testing scenarios.

RESEARCH EXPERIENCE

iDC-NEU Research Group   Jul 2024 - Mar 2025
Research Intern   Prof. Yanfeng Zhang and Prof. Shufeng Gong

- Software-Hardware Cooperative Optimization
- Researched SPANN and SPFresh, and optimized vector database system I/O using SPDK.

Artificial Intelligence Lab of NEU   Mar 2023 - Jul 2023
Research Intern   Prof. Miao Fang

- Learned deep learning fundamentals such as logistic regression, regularization, and CNN.

ACHIEVEMENTS

StarRocks Active Contributor   Feb 2025 - Present
Core maintainer for 10K+ star MPP database project

National Third Prize   Jul 2024 - Nov 2024
Intelligent Computing Innovation Design, System Development Competition

TECHNICAL SKILLS

Certifications	TOEFL 103, GRE 332 (Q:168, V:164, AW:5.0)
Languages	C/C++, Python, Java, Golang, SQL, CUDA, C#, MATLAB, HTML, CSS, JavaScript
Databases	StarRocks, MySQL, TiDB, MongoDB, Redis, Databricks
Frameworks	PyTorch, Spring (MVC/Boot/Cloud/Security) , Flask, Apache Arrow, MyBatis, Dubbo
Systems	Linux/Unix, Docker, Distributed Systems, MPP
Tools	Git, LaTeX, Spark, Kafka, Selenium, DBT, Tabular, FIO, SPDK, Maven, Nginx, Drools