EILEEN GUO

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EDUCATION

Brandeis University, Boston, MA Sep 2016 - May 2020
Bachelor of Arts in Computer Science, Economics | GPA: 3.6/4.0, Major GPA: 3.8/4.0
Relevant coursework: Operating System, Data Structures, Distributed Systems, Math Logic, Theory of Computation

PROFESSIONAL EXPERIENCE

BONC, Beijing, China July 2020 - July 2021
Software Engineer

- Deployed a high-performance backup and restore system, reducing data migration time by 32% and recovery time by 13% within 2 months. Achieved 99.9% data accuracy, enabling seamless migration to new environments.
- Enabled seamless data recovery for users by introducing options for full, incremental, and metadata-only restores, with the ability to overwrite or add to existing databases. Enhanced overall system reliability and user satisfaction.
- Implemented the Swinging Door Trending compression algorithm, improving data storage capacity by 94.44%.
- Crafted 1000+ dynamic test scripts including unit and integration tests, seamlessly integrated them into the CI/CD pipeline using GitHub Actions to enable automated testing; and leveraged InfluxDB for robust feature validation.
- Onboarded the QA team with schemas, achieved test case completions by 30% and cut testing time by 13%.
- Pioneered and managed a comprehensive user and developer training system.
- Tailored the Grafana plugins for metrics monitoring and visualization, catering to the specific needs of 2 users.
- Contributed to the Apache open-source community IoTDB with 3+ features, 25+ fixes, and 4000+ lines of code.

ACADEMIC PROJECTS

Expense Tracker - *MongoDB, Mongock, Spring, REST API, Maven* Feb 2023 - Mar 2023

- Developed a robust expense tracker with Spring framework, reducing CRUD operation time by 32% through seamless interfacing with MongoDB.
- Engineered document IDs for streamlined data retrieval, achieving 28% faster data retrieval, while the responsive service layer boosted query optimization by 25%.
- Employed the Mongock library for smooth database schema changes and migration, ensuring seamless updates. Rigorously tested the service within a Docker container using Testcontainers, guaranteeing solid reliability and zero downtime.

MapReduce Inverted Index - *MapReduce, Hadoop, Docker, Maven* Mar 2020 - Apr 2020

- Engineered a Hadoop MapReduce application to scan datasets, achieving a significant 14% data reduction by streamlining text preprocessing and eliminating stop/scrub words.
- Boosted query throughput by 89% through bucket hashing and binning for inverted index retrieval. Utilized Docker and cluster environment to ensure superior performance and scalability.

SKILLS

Programming Languages: Java, Python, C, C#, Shell/Bash
Databases: MongoDB, MySQL, InfluxDB, IoTDB
Software & Tools: CI/CD, Git, GitHub Actions, Spring, REST API, Unix/Linux, Docker, Hadoop, Grafana, Scrum, Jira