HoJeong Kim

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Objective

Responsible and curious student driven by a passion for continuous improvement and solving complex problems at scale. Experienced in designing and optimizing high-performance backend systems with Java, Spring Boot, and distributed technologies like Kafka and Redis. Thrives on ambitious challenges and seeks to collaborate in a fast-paced, candid environment where I can both contribute my skills and learn rapidly from others.

Experience

- **Kakao bootcamp [🌐]** *January 2025 - July 2025*
  Backend Development Course Pangyo, Korea
  - Applied performance optimization strategies, including such as database indexing, query tuning, and cache optimization, achieving measurable improvements in API response times and system throughput.
  - Led backend development within a cross-functional team of AI, Frontend, and Cloud engineers. Collaborated in an agile workflow, rapidly iterating on a web application and ensuring tight alignment between backend services and user-facing features.

Education

- **Sogang University** *March 2022 - Present*
  Computer Science and Engineering, currently enrolled in 6th semester Seoul, Korea
  - GPA: –/4.5
  - Related coursework:
    (Completed) Data Structures, Algorithms, Computer Architecture, Digital Circuits, Deep Learning, Information Security
    (Currently taking) Operating Systems, Compiler Construction, Computer Vision
- **Hankuk Academy of Foreign Studies** *March 2019 - January 2022*
  Secondary Education, Natural Science Track Yongin, Korea

Projects

- **Project A: AI-powered automated calendar** *April 2025 - July 2025*
  Tools: Spring Boot, JPA, PostgreSQL, Redis, Kafka [🐙]
  - Developed a real-time collaborative calendar **backend** using **Spring Boot**, enabling schedule synchronization through **WebSocket** and **SSE**, with **Kafka** for asynchronous message streaming.
  - Reduced **95th percentile query latency by 32.3%** and achieved **96% cache hit rate** through **Redis caching strategies** (Cache Aside, TTL + jitter, Redisson distributed locks).
  - **Improved database performance** by resolving N+1 queries and optimizing indexing, significantly accelerating high-frequency schedule queries.
  - Built **real-time collaboration features** using WebSocket and SSE, supporting instant schedule synchronization and event notifications across distributed users.
  - Designed **scalable event streaming pipelines** with Kafka + KStream to support chatbot functionality and multi-instance consistency.
- **Project B: Q&A system for students** *January 2025 - March 2025*
  Tools: Spring Boot, JPA, MySQL, HTML, CSS, Vanilla JS [🐙]
  - Developed an anonymous Q&A system for students using Spring Boot and JPA, ensuring efficient data management and persistence.
  - Established test code practices to verify functionality and maintain high software quality.

Skills

- **Programming Languages:** Java, C++, Python, C, Javascript
- **Web Technologies:** Spring Boot, JPA(hibernate), Redis, Kafka, Django, React
- **Testing Tool:** JUnit, Mockito
- **Infra:** Docker
- **Database Systems:** MySQL, PostgreSQL, MongoDB, h2 database
- **Data Science & Machine Learning:** LangChain, PyTorch, Matplotlib
- **Web Crawling & Automation:** Selenium, BeautifulSoup

Additional Information

Languages: Korean (Native), English (Fluent, OPIc AL – ACTFL Speaking Assessment)

Interests: Enhancing system scalability and modularity. Physical AI and basically exploring new technologies.