Junichi Koizumi

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EDUCATION

Bachelor of Science, Computer Science

Arizona State University – Tempe, AZ

Courses: Data Structure & Algorithms, Object Oriented Programming, Web Development, Distributed Systems, Operating Systems , Foundation of Machine Learning, Database Management

Awards: GCSP Research Stipend

EXPERIENCE

Favoland AI **May 2024 – December 2024**

Software Engineering Intern

Tempe, AZ

• Improved accuracy by **25%** and consistency by **22%** in the AI model responses for Claude 3.5 Sonnet and GPT-4 when evaluating the **55,000** unique ingredients, addressing hallucination.

• Implemented context caching mechanism for Gemini models, reducing API costs by **40%** and improving response times by **32%**.

Arizona State University **May 2024 - Present**

Undergraduate Researcher

Tempe, AZ

• Deployed survey using Qualtrics to collect data on user perceptions of the appropriateness, ethical concerns, and potential biases of using various candidate attributes in AI-based recruitment.

PERSONAL PROJECTS

Simple Compiler | *C++*

- Designed a C++ compiler supporting nested control structures (if, while, switch, for), utilizing recursive descent parsing and pointer manipulation, validated by 66 test cases.
- Developed an intermediate code generator with linked list architecture and dynamic memory management, translating high-level constructs into optimized three-address code.

Restaurant Booker | *Spring Boot* | *PostgreSQL*

- Built a full-stack restaurant booking application using Spring Boot, featuring user authentication, real-time reservation management, and automated notifications to enhance user experience.
- Developed a reliable backend with efficient search and update features, ensuring seamless data handling via PostgreSQL.

Dynamic Script Runner | *AWS* | *DynamoDB*

- Reduced manual input and improved operational efficiency for uploading scripts by designing an automated process utilizing event-driven architecture in DynmoDB for seamless EC2 script activation.
- Accelerated validation speeds by **30%** to improve application efficiency and user satisfaction by creating an AWS Lambda function for user input processing and data validation and monitoring metrics with CloudWatch.

TECHNICAL SKILLS

- Languages: Java, Python, Scala, JavaScript, HTML/CSS, SQL,C, C++
- Frameworks/Libraries: Spring Boot, Node.JS, PostgreSQL, Apache Spark, Git
- Applications: AWS, Git, Linux, Docker