JeongJun Song

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SUMMARY

Computer Science student with over 2 years of experience in full-stack development, object-oriented programming. Passionate about utilizing machine learning and OCR technologies to solve real-world problems, seeking internship opportunities to further develop my skills and contribute to innovative projects.

EDUCATION

BS. Computer Science December 2025

Arizona State University, Tempe, AZ

SCHOLARSHIP

NAMU (New American University Scholar) SCHOLARSHIP | For top international students | ASU | 2023-2025 | Tempe

FURI (Fulton Undergraduate Research Initiative) Award | For students who are eligible to participate the research program | ASU | 2024 | Tempe

TECHNICAL SKILLS

Programming Languages: Java, JavaScript, Python, C/C++

Front-End: HTML, CSS, React.JS

Tools, Databases, and OS: Node.JS, PostgreSQL, Git, GitHub, Windows, Linux/Unix, Docker

PROFESSIONAL EXPERIENCE

Arizona State University, Tempe, AZ: FURI Research Aide May/2024 - present

Leading the Vision AI Insights Project: Applying Machine Learning and OCR Libraries to Solve Real-World Challenges with a Team of Three Members.

- Conducted an in-depth analysis of **YOLOv10,** highlighting its innovative **NMS-Free Training**, which eliminates the Non-Maximum Suppression step, thereby reducing inference time and improving real-time performance.
- Evaluated the effectiveness of Spatial-Channel Decoupled **DownSampling** and Rank-Guided Block Design in YOLOv10, demonstrating significant improvements in computational efficiency and model performance for real-time object detection tasks.
- Implemented a cost-effective **OCR** solution by integrating **PyTesseract** for image quality assessment and **Amazon Textract** for high-quality image processing, optimizing resource utilization and minimizing unnecessary transaction costs.
- Designed and developed a web application using **HTML**, **CSS**, **JavaScript**, and **JavaFx** to display OCR-extracted information on the fronted, integrating backend processing and deploying the server with **Docker** for streamlined deployment and scalability.

NGL Transportation INC, Phoenix, AZ: Software Engineering Intern January/2022 - January/2023

Led an OCR Project to detect container numbers, significantly reducing truck transit times at the gate.

- Enhanced image detection accuracy by **20%** by developing and refining a **YOLOv5** AI model for improved feature recognition in container images.
- Reduced image processing time by **30%** using **OpenCV** for efficient image parsing and pre-processing workflows.
- Streamlined real-time data integration by automating **JSON** data transmission via **POST API** to an **AWS** server, decreasing data entry errors by **15%**.
- Managed over **10,000** daily data transactions on **AWS S3, MySQL**, optimizing database schemas and storage practices for enhanced data security and accessibility.

Led the KPI Automatic Project, developed an executable program to automate data crawling tasks, significantly boosting operational efficiency.

- Utilized Selenium to extract necessary information from web pages, achieving the desired result.
- Automated data crawling tasks that typically took **20 minutes** to complete manually, allowing for instant results with a click of a button and reducing task completion time by **80%**.
- Converted the application into an executable (EXE) file and distributed it to all employees, resulting in increased work efficiency and streamlined operations.

MILITARY

Hanbit Unit 12th of United Nations (UN), Bor, South Sudan – Driver, Interpreter January/2020 – January/2021

- Responsible for transporting operational personnel and providing interpretation services.