JUHUN PARK

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TECHNICAL SKILLS

- **Languages:** Python, JS/TS, Go, Java, SQL
- **Libraries & Frameworks:** React, SvelteKit, Flask, Django, Pandas, NumPy, PostgreSQL
- **Tools:** Git, Linux, RabbitMQ, Algolia, Docker, Firebase, GCP, MediaPipe, Linear

EDUCATION

George Mason University — Expected May 2027
BS Computer Science — GPA: 3.9

Relevant Courses: Problem Solving & Programming, Object Oriented Programming, Data Structures & Algorithms

EXPERIENCE

Copium.dev — Jan 2025 - Present
Founder — Remote

- Built an internship application management platform with **SvelteKit** for **400k** users, with **90k** daily job applications.
- Scaled search engine indexes to 10k concurrent operations with **Cloud Pub/Sub**, reducing search latency by **30%**.
- Delivered an **80%** reduction in query latency for **BigQuery** data analytics by leveraging CQRS pattern architecture.
- Implemented server-side paginated Algolia searches, achieving **50%** reduction in data transfer costs.
- Utilized compensating transactions for consistency across data stores with a **99.9%** success rate.

InsightLegi — Jan 2025 - Mar 2025
Software Engineer Intern — Fairfax, VA

- Created data visualization dashboard for 15 states, **30+ charts** using **Chart.js** and **React-Query** while maintaining **sub-150ms** data fetch time, resulting in **20%** reduced operating costs by improving computing resource efficiency.
- Developed a web application using **React** and Tailwind to promote the hackathon, led to **42%** increased registrations.
- Implemented a registration pipeline in **Go** and Google Workspace API, reducing registration processing time by **70%**.

Gimpo Highschool Natural Science Department — Mar 2021 - Feb 2022
Student Researcher — Gimpo, South Korea

- Led an AI research project developing a motion detection application using **NumPy**, **OpenCV**, and **Google MediaPipe**.
- Achieved **90%** detection accuracy for 12 hand movements, enabling real-time tracking for interactive device control.
- Co-authored a scientific research paper outlining project results, outlook for advancing AI-driven motion-based systems.

PROJECTS

Calple | GitHub | calple.date
Next.js, Go, Tailwind, Algolia, Docker, GCP, Firestore

- Built a relationship management platform with Next.js, Go and Firestore, featuring shared calendars, curated date ideas.
- Achieved 99.9% uptime and efficient scaling on GCP Cloud Run with a 30MB Dockerized backend image.
- Optimized database queries and backend logic for calendar and note operations, achieving sub-150ms response time.

Project Verstappen | GitHub
Python, Shared Memory API, OpenCV, AC/acsys module

- Engineered a real-time telemetry data analysis solution for simracers, minimized server costs by data compression and selective real-time telemetry updates.
- Designed intuitive UI/UX making complex data more approachable, visualizing 10 critical telemetry parameters.
- Utilized OpenCV to develop, implement image processing pipelines for accurate track line extraction and lane detection.