

Karryl Dumalag

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EDUCATION

Arizona State University, Tempe, AZ

May 2025

B.S.E, Computer Systems Engineering

- Coursework: Algorithms, Data Structures; Networks; Operating Systems; Computer Architecture

College of Southern Nevada, Las Vegas, NV

May 2021

A.S., Applied Science (honors)

SKILLS

Programming Languages: Python, Java, C/C++, JavaScript, Typescript, SQL, HTML, CSS

Frameworks & Technologies: React, Next.js, .NET, PostgreSQL, REST APIs, AI/ML

DevOps & Cloud: Google Cloud Platform, Docker, Linux, CI/CD, Agile, Git

EXPERIENCE

Irenix | Software Engineer Volunteer

Jul 2025 - Present

- Led a small cross-functional team of frontend and backend engineers to build a greenfield full-stack platform, contributing to backend architecture and predictive analytics using Python, and using React frameworks with Typescript for frontend web development.
- Designed and implemented containerized cloud infrastructure for an EHR system on Google Cloud, owning backend system foundations including database schema design and API development, enabling scalable microservice data exchange and improving uptime by 25%.
- Improved backend data processing and API efficiency, reducing client-side latency by ~10% and enhancing end-to-end performance.

General Dynamics Mission Systems | Software Engineer Fellow

Aug 2024 - May 2025

- Accelerated automated testing by ~20% by creating a cross-platform testing framework tailored for secure communications distributed systems under strict DoD standards.
- Increased test coverage by integrating OCR-driven validation modules into the CI/CD pipeline, improving the accuracy and reliability of encrypted communication verification.
- Influenced later project direction by presenting detailed test reports and strategic recommendations to stakeholders, strengthening alignment across engineering and program teams.

28 Gorilla Engineering | Software Developer Intern

Mar 2024 - Apr 2025

- Improved IoT testing efficiency in performance validation by 16% through creating a scalable, multi-threaded system that reduced real-time data latency during machine evaluations.
- Designed a real-time data pipeline to ingest and process high-frequency BMS telemetry, enabling low-latency analysis and dynamic charting for large-scale battery performance monitoring.
- Boosted team productivity by documenting workflows and implementing organizational improvements that streamlined daily operations.

Education At Work | Enterprise Technical Support Specialist

Jan 2023 - July 2023

- Resolved an average of 40+ enterprise-level technical issues per week for Microsoft Surface devices by providing Tier 2/3 remote troubleshooting, system diagnostics, and escalation support, reducing client downtime by 25%.

PROJECTS

Personal Website: KayeJD.github.io

Volex – Banking App | Next.js, TypeScript, Appwrite, Plaid, Dwolla, React, TailwindCSS

Apr 2024 - Dec 2024

- Built a secure, SSR-authenticated financial app with real-time transaction tracking and automated payments by integrating Plaid/Dwolla APIs and balancing performant UI design with robust backend logic.

Spotify Analytics Web Dashboard | Javascript, Express.js, Pug, CSS, OAuth2

Nov 2023 - Dec 2023

- Engineered a real-time music analytics web dashboard enabling users to securely log in with Spotify and view their up-to-date listening statistics.