Karryl Dumalag

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EDUCATION

Bachelor of Science in Engineering, Computer Systems Engineering May 2025
Arizona State University, Tempe, AZ

- Relevant Coursework: Algorithms & Data Structures; Networks; Operating Systems; Computer Architecture; Embedded Programming

SKILLS

Technical Skills: React, Next.js, .NET, Prisma, PostgreSQL, REST APIs, Google Cloud Platform, Linux, CI/CD, Agile
Languages: Python, Java, C/C++, JavaScript, Typescript, SQL

PROFESSIONAL EXPERIENCE

Software Engineer, Intern | *Irenix* Jul 2025 - Present

- Engineered backend infrastructure and testing environments for a HIPAA-compliant EHR system in Google Cloud, increasing uptime by 25% and supporting scalable data exchange across microservices.
- Refactored app data handling logic, cutting client-side latency by 30% and improving overall app performance.

Software Engineer, Student Contract (Capstone) | *General Dynamics Mission Systems* Aug 2024 - May 2025

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

Software Developer, Intern | *28 Gorilla Engineering* Mar 2024 - Apr 2025

- Improved IoT testing efficiency regarding performance validation by 16% by developing a scalable, multi-threaded backend 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.

Enterprise Technical Support Specialist | *Education At Work* 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%.

SOFTWARE PROJECTS

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.

EffortLogger v2.0 | *JavaFX, FXML, MySQL* Jun 2023 - Dec 2023

- Reduced administrative overhead by 27% by leading a team of 4 developers to deliver a secure, privacy-first sprint planning platform.
- Managed end-to-end software development lifecycle by overseeing project scoping, Agile documentation, backlog grooming, and deployment, for timely and structured delivery.

To be straight, I'm a new graduate. I studied Computer Systems Engineering, so I have some relevant background between both Electrical and Computer Engineering. Most of my experience has been through engineering firms, including large, DoD-based environments such as General Dynamics Mission Systems (GDMS) and with smaller teams like at 28Gorilla Engineering, both of which have combined the electrical and software development sides of engineering, and I've really been looking for a place where I can keep extending this area of expertise.

In both settings, I've had the opportunity to learn a range of engineering skills. For example, at GDMS, I learned how to follow strict military documentation and development guidelines building on FPGA boards, and also how to lead stakeholder meetings to communicate deliverables and hand-over processes for software programs.

At 28 Gorilla Engineering, the small company environment helped me learn how to adapt to a fast-paced, results-driven expectations with evolving requirements. Although I'm not an electrical engineer, I had the opportunity to work alongside. I've seen the PCB development process. Being an intern, I've also been tasked with the manual building of boards, testing faulty designs, deconstructing burnt builds, and etc.

At my most recent company, I've had the opportunity to extend my hands-on experience with AI and model building (specifically through Google Cloud tools) to build profile matching models. Although I'm pretty new to that side of software development, I’m excited to continue growing in roles that combine software engineering, systems understanding, and emerging AI technologies. If you're open to having a newer addition to the team, I'd love the opportunity to join.