Karryl Dumalag

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EDUCATION

Computer Systems Engineering (BSE) August 2021 - May 2025
Arizona State University, Tempe, AZ

- **Relevant Coursework:** Algorithms and Data Structures, Operating Systems, Software Engineering, Data Science, Networks, Design/Synthesis of Digital Hardware, Circuits, Signal Processing, Embedded Microprocessor Systems, Computer Architecture
- **Certificate: Mathematical Concepts of Engineering**

Associate of Applied Sciences (AS) ***(honors) (HS dual enrollment)*** *(3.8/4.0 GPA)* August 2019 - May 2021
College of Southern Nevada, Las Vegas, NV

PROFESSIONAL & LEADERSHIP EXPERIENCE

Software Developer Intern | 28 Gorilla Engineering | Chandler, AZ March 2024 - Present

- Developing a scalable backend architecture to address inefficient data handling for an IoT device management system. Improved data handling efficiency by 6% and enabled interactive GUI web interfaces for better data visualization and device configuration.
- Optimized a multi-threaded data collection and processing system to solve the problem of slow real-time data analysis.
- Reorganized documentation processes to improve inefficient work practices. This led to a 10% boost in work efficiency.
- Designing and implementing user-friendly web interfaces, addressing the need for better IoT device data analysis tools.
- Supported hardware development through schematics, circuit board reverse engineering, and soldering.

Turn Pro Participant | Management Leadership for Tomorrow | Washington, D.C. June 2023 - Present

- Engage in this professional development program for diverse undergraduate talent attending select universities
- Complete program coursework to hone career-development aptitude and industry knowledge
- Attend events hosted by industry leaders in technology, financial services, consulting, marketing, HR and healthcare

Microsoft Enterprise IT Support | Education At Work | Tempe, AZ January 2023 - July 2023

- Conducted diagnostic tests and analyzed error logs, resolving technical issues 20% faster than the average resolution time.
- Created detailed work orders and documentation, streamlining workflow and improving issue tracking efficiency by 15%.

TECHNICAL PROJECTS

Website Portfolio: https://kayejd.github.io/ May 2022 - Present

General Dynamics Mission Systems - Secure Communication Platform Test Process Development August 2024 - Present

- Tech Stack: Qt, C++, Squish GUI Tester, Linux, Git
- Designed and implemented a comprehensive GUI-based test process for a secure communication platform on a Linux-based touchscreen device, utilizing Qt for GUI implementation and Squish GUI Tester for automated testing.
- Developed and evaluated the effectiveness of the testing process, utilizing Agile project management methodologies and Git version control for efficient collaboration and iteration.

VOLEX: Banking App April 2024 - Present

- Tech Stack: Next.js, TypeScript, Appwrite, Plaid, Dwolla, React Hook Form, Zod, TailwindCSS, Chart.js, ShadCN
- Developed a secure and user-friendly platform for managing finances with features for tracking transactions, managing payments, and, most importantly, visualizing financial data.
- Employed Next.js, TypeScript, and TailwindCSS to create a responsive dashboard with secure server-side rendering (SSR) authentication for user data protection. Integrated API services like Appwrite, Plaid, and Dwolla for seamless banking functionalities.

Spotify WebAPI Integration Nov 2023 - Dec 2023

- Tech Stack: Javascript, Express.js, Pug, CSS, API, OAuth2
- Developed the backend of a web application using Express.js to handle user authentication (OAuth2), manage API requests efficiently, and serve dynamic content.
- Integrated Spotify's API to generate personalized song recommendations based on user data to increase user engagement.

Credit Card Fraud Detection Oct 2023 - Nov 2023

- Tech Stack: Python, Jupyter, pandas
- Improved credit card fraud detection accuracy in a dataset with imbalanced class distribution.
- Created a machine learning model using Python and TensorFlow to detect fraudulent transactions. Improved model accuracy by 18% by addressing data imbalance and utilizing performance metrics like precision, recall, and F1-score.

SKILLS

Technical: C++ | Java | Python | Javascript | Typescript | OOP | Docker | React | Git | HTML/CSS | Node.js | REST | Tableau | Electron
Soft: Agile | Documentation | Communication | Adaptable | Test-Driven Development | User Requirements | SDLC | CI/CD