

DENISE ROSE MASCARDO

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EDUCATION

Western Governors University
Bachelor's of Science in Computer Science

Expected Graduation: May 2026

EXPERIENCE

Deep Dive by CNM Ingenuity - Albuquerque New Mexico September 2025 - December 2025

Full-Stack Web Development (12-week program)

- Developing comprehensive full-stack expertise through an intensive curriculum covering **HTML5, CSS, JavaScript, React, Node.js, Express, PostgreSQL, Git/GitHub, Docker**, and **agile methodologies**.
- Completed **capstone project** and **AI-assisted coding sprints** with career-readiness support including portfolio development and interview prep.

OPTIGREEN - Desert Dev Lab Hackathon 2025 Winner (1st Place) November 2025

- **Won first place** at Desert Dev Lab Hackathon 2025 for developing **OptiGreen**, an LLM token optimization solution that **reduces cloud billing costs, executes prompts 40% faster, and decreases energy consumption by 50%** without requiring behavioral changes from SaaS providers or private server hosts.
- Engineered intelligent token compression algorithms targeting **AI computational efficiency and sustainability**, addressing the environmental impact of large language model operations while maintaining output quality and user experience.

PROJECTS

Landon Hotel Booking System - Full-Stack Enterprise Application

- Engineered full-stack hotel booking application using **Spring Boot** backend and **Angular** frontend, implementing **multithreaded Java** services for **concurrent language translation** (English/French) and real-time time zone conversions across multiple geographic locations.
- Developed RESTful APIs with Spring Framework to handle room availability queries, reservation processing, and currency exchange functionality, ensuring thread-safe operations. Containerized application using Docker for cloud deployment, creating deployment configurations that enable scalable microservices architecture and streamlined CI/CD pipeline integration.

Timeless Auto Inventory Management Web App with Java Spring Boot

- Built full-stack e-commerce web application using **Java, Spring Boot MVC architecture, JPA/Hibernate ORM, and Thymeleaf templating**, supporting complete **CRUD operations** and "Buy Now" purchase flow with **real-time inventory tracking**.
- Implemented custom business validation logic including **min/max inventory threshold alerts**, automated inventory updates on purchase transactions, and applied comprehensive unit testing to ensure data integrity and quality assurance.

SKILLS

Languages: Java, C++, JavaScript, CSS, SQL

Frameworks: Spring Boot, Angular, React, Node.js, Express, JPA/Hibernate, Thymeleaf

Database: PostgreSQL, MySQL

Tools: Docker, Git/GitHub, Maven, IntelliJ

OS: Windows, macOS, Linux

CERTIFICATION

ITIL® 4 Foundation Certification in IT Service Management