

Dalia Y. Castro-Fimbres

Clearance: Secret

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EDUCATION

Bachelor of Science in Software Engineering

May 2025

University of Arizona, College of Engineering

Tucson, AZ

- **Major GPA 3.8** - Member of Defense Civilian Training Corps and NewFos
- Coursework in software engineering (SLDC, DevSecOps, Agile development/ testing), web development, object-oriented programming, data structures/algorithms, database design, cybersecurity, game development, systems engineering (OO modeling and design), digital logic, FPGA programming, data engineering (SQL and Pandas)

SKILLS AND LANGUAGES

Languages: Bilingual - Fluent in written and spoken Spanish.

Programming Languages: Assembly, C, C++, C#, Python, SQL, HTML / CSS, TypeScript, JavaScript, and Java.

Other: Agile, DevSecOps, OOP, SLDC, Linux, Git, React, Angular, Docker, AWS, CI / CD, Jira

EMPLOYMENT

Software Engineer

Marana, AZ

Bayer CropScience

June 2025 – Present

- Remotely deploy and update GPU-enabled dev containers for an image-analysis pipeline (Python + YOLO) on 20+ Ubuntu edge boxes via SSH, keeping greenhouse stations online and consistent.
- Built and managed reproducible development environments using Docker Compose, Poetry, and GitHub Actions to streamline CI/CD.
- Used existing Bash scripts to configure proxies, install certificates, and recover network connections on Linux machines during deployment.

Junior Software Developer

Tucson, AZ

Avirtek

Aug 2024 – December 2024

- Developed a React and Material UI-based configuration tool for malware detection software, reducing user setup time by 40% through a clean and efficient UI
- Engineered a Flask backend in Python to handle real-time data exchange and integrated the Wazuh API to automate detection rule updates and monitor agent activity.
- Performed unit testing on frontend and backend components using pytest and browser-based tools like Chrome DevTools. Collaborated in a Dockerized Git-based environment to ensure reliability and fast iteration.

Lead Software Engineer Intern

Huntsville, AL

Devcom AvMC Army Game Studio

June 2024 – Aug 2024

- Led a team of four in designing and developing a 3D board game in Unity, delivering over 1,000 lines of C# code and a playable prototype within a 6-week timeline.
- Implemented core gameplay features including card logic, interactive UI/UX elements, and state management to enhance player engagement and usability.
- Applied Agile development practices across the full software lifecycle, including requirements gathering, backlog management in Jira, and iterative development using Git and VS Code.

RELEVANT CODING PROJECTS

Neo-Cath, Smart Urinary Catheter App

- Used React Native to build a mobile application for a smart urinary catheter system to visualize real-time temperature and pH data, with user alerts for abnormal readings on iOS and Android
- Developed a RESTful API using Flask to receive sensor data from an Arduino and store it in a MySQL database hosted on AWS; implemented endpoints to retrieve and manage the stored data for further use.
- Secured patient data using bcrypt for hashing with salting, ensuring compliance with HIPAA standards.

Pharmacy Management System

- Implemented a scalable full-stack pharmacy management system using React, FastAPI, and a PostgreSQL database, designed to streamline prescription processing, inventory control, and point-of-sale transactions.
- Built RESTful APIs with FastAPI and SQLAlchemy for secure and maintainable backend services, supporting role-based access for managers, pharmacists, technicians, and cashiers.
- Containerized a full-stack client-server application using Docker and managed source control with Git to enable consistent development and deployment.

Ticket Printing System

- Built a JavaFX desktop application using Maven with a Spring Boot backend for ticket printing and tracking, featuring an intuitive UI and RESTful APIs for ticket management and configuration.
- Integrated thermal receipt printers using ESC/POS commands through the Java Print Service API to enable direct communication and custom formatting.