ALEJANDRO A. DIAZ MEDINA

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EDUCATION

Mayagüez, PR **Recinto Universitario de Mayagüez, UPR** **Aug 2020-Dec 2025**

- **Major:** Software Engineering, B.S.E
- **Certificate Minor:** Project Management
- **Programming Coursework:** Advanced Programming(OPP),Data Structure, Intro to Software Engineering, Analysis of Algorithms, Foundations of Computing, Software Design, Machine Learning Algorithms
- **Languages:** Spanish, English

WORK EXPERIENCE

Data Analyst Intern **May 2023-Jul 2023**

NAGNOI LLC San Juan, PR (Hybrid)

- Partnered with a private Education Department to empower public schools through data-driven solutions.
- Utilized Excel, SQL and PowerBI for data preprocessing, organization, and analysis.
- Conducted statistical analysis and wrote SQL queries for efficient data retrieval.
- Engaged in peer code reviews, providing and receiving constructive feedback to enhance work quality.

Software/Data Engineer Intern **May 2024-Aug 2024**

Jacobs Engineering Guaynabo, PR (On-site)

- Developed and tested a response app for a private water company using Palantir Foundry for data management and transformation.
- Developed a chatbot capable of answering questions from PDF-based company procedures, improving document accessibility and internal workflows.
- Managed and transformed large datasets to ensure data integrity and accuracy.
- Collaborated with the development team to enhance application functionality and optimize system performance.
- Conducted thorough testing to identify and resolve data-related issues.
- Implemented data-driven solutions to streamline operations and boost performance across projects.

PROJECTS

Website portfolio: alejodiazportfolio.netlify.app

ChatBot (Palantir)

- Developed a chatbot at Jacobs that answers questions from PDF files containing company procedures.
- Utilized NLP and data extraction techniques to enable efficient retrieval of procedure information.
- Improved internal compliance and efficiency by streamlining access to procedural documents.

Sake Game

- Developed a classic Snake game using the Pygame library, implementing user controls, game logic, and real-time graphics.
- Utilized object-oriented programming principles to modularize code for enhanced maintainability and scalability.
- Applied problem-solving skills to troubleshoot bugs and enhance the player experience.

Dinner Dash Project / Fractal

- Developed C++ programs simulating Diner Dash and fractals, showcasing OOP and data structures.
- Used inheritance, polymorphism, and recursion to generate fractals (e.g., Sierpinski Triangle, Koch Snowflake).
- Refactored abstract and superclass structures for efficient, maintainable code.
- Enhanced gameplay with dynamic features like image loading and item pickups.

TECHNICAL SKILLS

- **Languages:** Python, C++, Java, HTML/CSS, SQL
- **Development Tools:** Git, GitHub, Visual Studio Code, Jupyter Notebook, PowerBI, Eclipse
- **Technologies:** NumPy, pandas, React.js, OpenCV, Tensorflow, Matplotlib