Damian Ramirez

(956) 960-4891 | Email | GitHub | Portfolio

Education

The University of Texas Rio Grande Valley Expected December 2026
Bachelor of Science in Computer Science *GPA: 3.63*

Professional Experience

Brownsville Public Utilities Board May 2026 – August 2026
Operations Analyst Intern

- Consolidated 15+ Excel files, PDF reports, and Oracle data sources into a centralized Power BI application covering 16 organizational KPIs across electric, water, and wastewater operations, providing 20+ managers and executives with a single source for performance reporting.
- Automated data transformation and KPI calculations using Power Query and DAX, moving key performance reporting from monthly distributions to daily refreshes and reducing reporting latency from up to 30 days to approximately 24 hours.
- Developed 4 executive dashboards with approximately 15 reporting pages and 16+ interactive visualizations across affordability, workforce, customer experience, and utility reliability, while designing the framework to scale to future divisional and departmental reporting.

Texas Manufacturing Assistance Center September 2025 – Present
Software Engineering Intern

- Designed and developed an internal software platform using Python, FastAPI, PostgreSQL, Next.js, and TypeScript, translating stakeholder requirements into centralized tools and workflows.
- Developed a 60-question manufacturing maturity assessment across 10 operational categories, automating category and overall scoring while preserving assessment history for repeat client evaluations.
- Implemented JWT authentication and advisor-scoped REST APIs for client and assessment management using FastAPI, SQLAlchemy, and PostgreSQL.
- Created interactive decision-support reports with Recharts, including maturity radar charts, category rankings, Pareto gap analysis, and AI-assisted proposal and 30-60-90-day roadmap generation.

Projects

SBA Loan Default Risk Predictor April 2026

- Built an XGBoost classifier predicting SBA 7(a) small business loan default risk across ∼8,000 Texas loans (FY 2018–2022), achieving 94% accuracy, 0.964 ROC-AUC, and 81% recall on defaults.
- Engineered a 608-feature dataset by integrating SBA FOIA loan data with U.S. Census ACS, County Business Patterns, and Business Dynamics Statistics datasets.
- Addressed class imbalance using weighted training and evaluated model performance using classification metrics beyond overall accuracy.
- Applied SHAP explainability to identify major risk drivers and deployed the trained model through an interactive Streamlit application.

Personal Portfolio Website August 2026 – Present

- Developing a personal portfolio website using Next.js, TypeScript, React, and Tailwind CSS to showcase professional experience, projects, and technical skills.
- Built reusable components and responsive layouts for presenting experience, education, projects, and contact information.
- Implementing the site with component-based architecture designed for continued expansion with additional interactive features.

Technical Skills

Languages: Python, TypeScript, SQL, C++, HTML, CSS
Data & Machine Learning: Pandas, NumPy, Scikit-learn, XGBoost, SHAP, Streamlit, Power BI, DAX, Power Query
Frameworks & Libraries: FastAPI, Next.js, React, React Native, Tailwind CSS, SQLAlchemy, Recharts, Expo
Databases & Tools: PostgreSQL, Oracle, Supabase, Git, GitHub