Imanol Saldana

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Summary

Agile and motivated Computer Science student with proficiency in Python and Java. Experienced in developing scalable software solutions and leading projects in both independent and collaborative environments. Demonstrates problem-solving skills, resilience under pressure, and a commitment to fostering inclusive and supportive team cultures. Eager to apply technical expertise and innovative thinking to contribute to dynamic software development teams.

Education

The University of Texas at Dallas Richardson, TX

Bachelor's in Computer Science *Aug. 2020 – Dec. 2025*

- Relevant Coursework: Systems and Programming in UNIX, Software Engineering Methodologies, Requirements Procurement, Programming Paradigms, Discrete Mathematics, Probability and Statistics, Stakeholder Communication, Adv Structures and Algorithms, Data Analysis, and Linear Algebra

Experience

SongParty Project University of Texas at Dallas

Team Member *Jan 2023*

- Led team conflict resolution by restructuring workflows to leverage individual strengths, reducing task friction and enhancing overall team efficiency.
- Implemented weekly stand-ups to promote accountability and empower team members, resulting in a 10% increase in project milestones achieved on time.

Theia Project University of Texas at Dallas

Researcher *May 2023*

- Developed documentation, testing, and implementation of software for real-time obstacle detection.
- Conducted pre-and post-user research to identify needs and challenges of impaired individuals, informing feature enhancements that improved user accessibility by 15%.
- Collaborated with a cross-functional team to deliver a user-friendly and accessible software solution.

Dallas Crime Effect on Housing Price University of Texas at Dallas

Developer *October 2024*

- Conducted data analysis on crime and housing price datasets to identify correlations and trends.
- Utilized R for data cleaning, analysis, and visualization.
- Developed predictive models to assess the impact of crime rates on housing prices in Dallas.
- Presented findings through detailed reports and visualizations to stakeholders.

Graph-Based Project Scheduling with PERT Algorithm University of Texas at Dallas

Developer *November 2024*

- Designed and implemented a modular graph structure to model project tasks, supporting both directed and undirected graphs for flexible task dependency representation.
- Implemented an algorithm to analyze task dependencies, calculate earliest/latest start times, and identify critical paths for efficient project scheduling.
- Automated a driver application to read graph inputs, execute the PERT algorithm, and output project scheduling results, ensuring seamless integration and usability.

Library Management DBMS University of Texas at Dallas

Lead Developer *April 2025*

- Implemented data cleaning pipelines for 10,000+ book records, resolving inconsistencies and improving data integrity by 40%
- Normalized database schema to 3NF through strategic decomposition of tables, reducing data redundancy by 5%
- Developed check-in/checkout mechanism using Python/SQLAlchemy, automating circulation processes and reducing manual handling time by 25%.
- Designed scalable database schema with SQLAlchemy ORM, improving team alignment through clean optimized indexing and relationships
- Created comprehensive UML diagrams and documentation to streamline future system enhancements and guide project members.

Technical Skills

Languages: Java (Intermediate) Python (Intermediate), R (Intermediate)
Tools/Technology: LaTeX, Unix, Universal Modeling Language
Data: NumPy, Pandas, ggplot2
Spoken Languages: English (Fluent), Spanish (Fluent)
Soft Skills: Communications, Adaptability, Problem-Solving, Initiative, Accountability, and Proactive.

Achievements

Academic Excellence Recipient, The University of Texas at Dallas