

IVAN DAVID DIAZ SANCHEZ

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WORK EXPERIENCE

Amazon

Jun 2025 – Jan 2026 | Seattle, WA

Software Development Engineer III (Contractor)

Jun 2025 – Jan 2026

- Designed and implemented a C#-based system to validate Microsoft Office update and upgrade compliance across Amazon-managed environments, ensuring systems met security and configuration requirements prior to rollout.
- Developed automated monitoring jobs to detect and diagnose configuration drift in production environments, enabling continuous verification and corrective action to maintain system consistency.
- Architected and implemented a configurable Python system for finding the official releases of specific software, streamlining processes in the environments. Additionally, engineered an interface system to facilitate testing the system efficiently.

Microsoft Corporation

Jul 2019 – Jan 2025 | Redmond, WA

Software Engineer II

Sep 2021 – Jan 2025

- Contributed to the .NET Framework 4.8.1 release, which also provides native ARM64 support. Ported highly desirable features from .NET Core, and worked closely with the Windows team to ensure seamless operating system integration.
- Enhanced the .NET runtime used in Docker containers by implementing configurable processor allocation and leading the development of ASP.NET Core composite images; designed and executed performance benchmarks to validate improvements and detect regressions.
- Designed and implemented a new runtime API enabling dynamic entry assembly configuration, supporting advanced launcher and service scenarios in environments such as Azure.

Software Engineer

Jul 2019 – Sep 2021

- Developed infrastructure to measure and analyze Garbage Collector performance across .NET Core and .NET Framework, producing repeatable benchmarks to validate runtime changes.
- Improved the build and test infrastructure for .NET Core, increasing test reliability and developer feedback. Additionally laid the foundation for a unified runtime testing system.
- Delivered the initial fixes and improvements to .NET Framework for ARM64, which later on was released for all architectures as version 4.8.1.

Oracle

Jan 2017 – Jul 2019 | Zapopan, Jalisco, Mexico

Software Developer II

Jan 2017 – Jul 2019

- Implemented new PL/SQL language features for the Oracle Database, such as native Large Object management, and specialized numerical operations.
- Designed and maintained comprehensive test suites validating functional parity and performance consistency between PL/SQL and SQL-based database packages, ensuring proper compatibility between both languages, as well as edge cases covering.
- Improved performance and security of core Oracle Database packages through targeted analysis, testing, and optimization.

EDUCATION

B.S. Computer Science and Technology

GPA 3.6/4.0

Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM)

State of Mexico, Mexico

SKILLS

Languages: C#, C, C++, Ruby, Python, JavaScript, SQL, PL/SQL, Bash, PowerShell, Elisp, Swift, Go, Julia, Lua

Testing & Validation: Automated Testing, Test Infrastructure, System Validation, Performance Testing, Regression Testing, Benchmarking

Technologies: .NET, Git, Docker, Linux, AWS, CI/CD Infrastructure, Software Design, Software Infrastructure, Automated Testing Systems, Node.js, HTML/CSS, LaTeX, Emacs, Vim, Oracle, Discord API, Visual Studio

Methodologies and Paradigms: Agile/Scrum, Object-Oriented Design, Test-Driven Development (TDD), DevOps, Continuous Integration (CI/CD), Relational Databases

PROJECTS

Fie Bot | *Python, Discord API*

Nov 2024 – Feb 2025

- Developing a Discord bot using Python to provide utilities and mini-games to a server I have with some friends.
- Using this project for fun to also mentor one of my friends who is currently in the second half of his bachelor's in Computer Science.

Review Japanese App | *Python, Emacs Lisp*

Summer 2024

- Developed a small app on Python to help me practice Japanese vocabulary.
- Reads the words from custom dictionaries written in Emacs Lisp and Org-Mode, and uses Python to scramble and ask them via a prompt.
- Provides various forms of studying. It can ask for Kana/Kanji of word in English, or the English translation of a Japanese word in Kana/Kanji.