

Carlos D. Martinez

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Professional Summary

Detail-oriented Computer Science graduate with hands-on experience in test automation, scripting, CI/CD pipelines, and system validation. Strong foundation in Java, Python, and C#, with experience debugging, maintaining automated tests, and collaborating with cross-functional teams. Proven ability to follow coding standards, improve reliability, and continuously learn modern testing tools and AI-assisted workflows.

Education

San Diego State University, San Diego, CA

B.S. in Computer Science

May 2025

Relevant Coursework: Artificial Intelligence, Database Theory & Implementation, Robotics, Operating Systems, Software Engineering

Universidad Autónoma de Baja California (UABC), Mexicali, B.C., Mexico

Engineering in Electronics (5 semesters completed)

2018–2020

Relevant Coursework: Electricity & Magnetism, Differential Equations, Circuits I & II, Multivariable Calculus, Modern Physics, Advanced Programming in LabVIEW, Dynamics, Thermodynamics, Statics

CBTIS 21, Mexicali, B.C., Mexico

Associate's in Electronics

May 2016

Relevant Coursework: Microcontroller Applications for Smart Buildings, PLC Programming, Digital Design, Analog Circuits and Radiofrequency

Work Experience

Case Manager

Self Determine Futures LLC, San Diego, CA

Mar 2025 - Present

- Excellent time management, clear communication, precise documentation
- Prioritizing cases based on risk, urgency, and constraints

STEM Instructor

Nexplore, San Diego, CA

Sep 2024 - Aug 2025

- Explaining complex concepts for diverse audiences
- Created reusable technical documentation and instructional systems

Unix/Linux System Administration Internship

San Diego State University, San Diego, CA

Feb 2025 - May 2025

- Built a distributed Linux-based network with DNS, Mail, Web, and Authentication services.
 - Used Kubernetes to deploy and load-balance redundant web servers.
 - Managed automation with Ansible scripts and implemented LDAP user management
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Projects

Azure ML: Diabetes Prediction Model ComparisonA

Azure Machine Learning, Classification Models

- Created an Azure Machine Learning workspace and uploaded a public diabetes dataset.
- Launched and configured training jobs to compare Logistic Regression, Random Forest, and Neural Network models.
- Evaluated metrics like accuracy and AUC to select the best-performing model.

Smart House Automation System

Microcontrollers, Sensors, Embedded Systems, Assembly

- Design and tested a multi-module smart house system with six independent automated subsystems
- Implemented and validated logic for: Smart key access control, Automatic lightning based on day/night detection, Automated water flow control, Temperature-based activation of cooling/heating systems
- Verified system stability through repeated execution under varying environmental conditions

Unity RPG Game

Unity, Artificial Intelligence, C#, Git

- Designed and maintained a Unity-based application using C#,
 - Debugged and executed repeatable test scenarios to verify AI logic, collision handling and gameplay state transitions
 - Use Git to manage source control, track changes, and collaborate with team members
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Technical Skills

- **Programming:** Python, C#, Java, Bash, C++
- **CI/CD & Tools:** Git, Jenkins, Docker, Linux, Kubernetes
- **Libraries/Frameworks:** scikit-learn, pandas, TensorFlow NumPy
- **Concepts:** Software testing fundamentals, automation coverage