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

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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 Comparison

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