Carlos Manuel Álvarez González

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SUMMARY

Full-stack software engineer, passionate about new technologies, software architecture, and agile methodologies. Proven success in leading software development teams for 7+ years in high-impact projects.

EDUCATION

MSc. Degree in Computer Engineering   University of Costa Rica
Honor graduation with a GPA of 9.66 over 100   *Aug 2010 – Dec 2014*

BSc. Degree in Computer Engineering   Institute of Technology (TEC), Costa Rica
Graduation with a GPA of 88.54 over 100   *Feb 2005 — Sep 2009*

EXPERIENCE

Hikru Tech   September 2021 – Present
Senior Software Engineer   *Martigny, Switzerland*

- Designed and developed an AWS serverless, event-driven application optimized for efficiently loading, indexing, and querying high-volume vehicle databases, reducing query response time by 45%.
- Built a serverless API for calculating vehicle loan or lease taxes, reducing the average response time by 40%.
- Implemented test-driven practices that increased code coverage by 84% in the aforementioned projects.
- Developed CI/CD pipelines, eliminating 100% of the manual tasks related to deployment.
- Collaborated with stakeholders to identify business goals, translating them into technical requirements which guided the project scoping and prioritization.
- Engaged in self-directed learning on Artificial Intelligence, focusing on foundational deep learning concepts such as supervised and unsupervised learning.

Central Bank of Costa Rica   Jun. 2013 – Sep 2021
Senior Software Engineer   *San Jose, Costa Rica*

- Led a team of 7 people in the design, development, deployment and maintenance of the shareholders' management system of Costa Rica, which processes 300,000+ legal person declarations per year.
- Implemented and operated micro-services for the Costa Rican interbank transfers system, which executes more than 60 million transactions per year.
- Served as a Scrum Master, providing coaching on Agile principles to multiple teams for over 2 years.
- Analyzed and negotiated stakeholders' requirements through clear communication, effective networking and facilitation skills, reaching agreements between people of different backgrounds (legal, financial and management), translating the requirements into a backlog of more than 140 user stories driving the project execution.
- Collaborated and promoted the establishment of CI/CD practices across multiple projects and teams, improving their releasing performance up to 45%.
- Mentored 20+ team members in the application of Clean Code and test-driven development principles.
- Demonstrated abilities to work under pressure solving high-priority tickets and customer inquiries, contributing to the 99.9% availability of the interbank transfers system.

Grupo Asesor - IT Services Group   Mar. 2008 – Jan 2013
Software Engineer   *Curridabat, Costa Rica*

- Created a specification language and a compiler for the implementation of web forms to speed up the development of 150+ forms, reducing the development time by 40%.
- Led 2 teams of 3 people in the design and development of two Web applications for the governmental sectors.
- Designed and developed a business intelligence decision-making system for the National Institution of Aqueducts and Sewers of Costa Rica (AYA), which processes more than 5 million bills per month.

Certifications

AWS Certified Developer — Feb 2024
- Amazon Web Services Training and Certification

AWS Certified Cloud Practitioner — Nov 2022
- Amazon Web Services Training and Certification

Professional Scrum Master I & II — Jun 2020
- Scrum.org

Awards

Academic Excellence — Aug 2013
University of Costa Rica
- Award given for the academic excellence in the Master Degree Program of Computer Engineering.

Skills

Web
- NodeJS, JavaScript, TypeScript, Angular, HTML5, CSS, jQuery, Bootstrap, React, JSP, REST, SOAP, XML, JSON, IIS, Apache, Glassfish.

Programming languages
- C#, Python, Java, Visual Basic, C, C++, Scheme/Lisp, Prolog

Databases
- SQL Server, OpenSearch, ElasticSearch, Oracle, MySQL, SQLite, PostgreSQL.

Cloud
- Amazon Web Services (AWS), Microsoft Azure

Development process
- Agile, Scrum, Kanban, TDD, XP, Continuous Integration, Continuous Delivery.

Tools
- VSCode, Google Colab, MS Visual Studio, GIT, NetBeans.

Relevant Courses

- Machine Learning Crash Course, Google, 2025.
- Fundamentals of generative AI for real-world applications, DeepLearning.AI, 2024.
- Introduction to Generative AI for Software Development, DeepLearning.AI, 2024
- Team Software Engineering with AI, DeepLearning.AI, 2024
- AI-Powered Software and System Design, DeepLearning.AI, 2024
- Embedding Models: From Architecture to Implementation, DeepLearning.AI, 2024

Teaching Experience

Distance State University (UNED) — Sep 2017 – Aug 2020
Costa Rica
- [03300] Software Engineering
- [03075] Web Development Fundamentals

Institute of Technology (TEC) — Jul 2016 - Dec 2018
Costa Rica
- [IC-4301] Databases I
- [IC-7841] Software Engineering Projects

Hobbies & Interests

- Enthusiastic guitarist with a passion for improvisation and music production. Enjoy recording and mixing tracks using AmpliTube, GarageBand, and Logic Pro.
- Passionate about fitness, nutrition, and healthy living, with a strong interest in strength training, running, and mindfulness.

Languages

Spanish (Native), English (C1), French (B1), Portuguese (B1)