Manuel Rodríguez Camacho

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Professional Summary

Software Development Engineer and Technical Leader with experience in full-stack development, microservices architecture, cloud-ready applications, and cross-functional team collaboration. Skilled in designing scalable systems, implementing best development practices, and guiding engineering teams toward efficient and timely delivery.

Technical Skills

Languages: C#, C, JS, CSS, PHP, Python, VHDL
Architectures: MVC, MVVM, Microservices, Legacy Layered application
Databases: SQL Server, Azure SQL, MySQL

Frameworks: .NET Core, MAUI, Razor Pages
Tools: Git, Azure DevOps, Docker, Ansible, KVM, WSL2, VPN, SCRUM
Cloud: Azure (App Services, SQL, Pipelines), AWS

Professional Experience

Software Developer / Technical Leader   **Cryoinfra — 2019 to 2025**

- Led multidisciplinary SCRUM-based teams, ensuring timely delivery of high-impact software solutions.
- Designed, implemented, and maintained a microservices-based architecture secured with JWT authentication.
- Developed scalable web and mobile applications using Razor Pages, .NET Core, and .NET MAUI.
- Integrated and orchestrated multiple internal and external APIs for data synchronization across systems.
- Defined technical documentation standards, including architecture diagrams, workflows, and coding guidelines.
- Mentored junior developers, conducted code reviews, and promoted best practices in software development.
- Provided user support and technical training for internal tools and enterprise applications.

Laboratory Academic   **Universidad Autónoma Metropolitana - Azcapotzalco — 2014 to 2017**

- Developed and maintained departmental web site and applications using PHP, JavaScript, and MySQL.
- Administered Linux and Windows servers, as well as departmental network infrastructure.
- Maintained and supported Systems Department classrooms and laboratories.
- Contributed to teaching and research activities by assisting faculty and supporting academic projects.

Junior Software Developer   **Cryoinfra — 2012 to 2014**

- Developed monolithic web and desktop applications using .NET Framework and SQL Server.
- Collaborated closely with QA and product teams to ensure high-quality deliverables.
- Diagnosed and resolved complex issues in third-party components (e.g., Telerik).
- Optimized database queries, improving application performance and reliability.
- Provided help desk and technical support for internal users.

Education

- **Master of Computer Science** — Centro de Investigación y Estudios Avanzados (CINVESTAV) 2016 to 2018
- **Computer Engineering** — Universidad Autónoma Metropolitana Azcapotzalco (UAM-A)   2009 to 2014
- **Computer Technician** — Centro de Estudios Computacionales del Valle de México (CECOVAM) 2006 to 2008
- **Automated Machines Technician** — Centro de Estudios Científicos y Tecnológicos (CECyT 9) 2005 to 2008

Highlighted Projects

HookHubNet

- HookHubNet is a tunneling system that enables secure forwarding of TCP traffic through WebSocket connections. It consists of a central hub that manages connections from multiple hooks, each forwarding traffic to backend services.

Cryoinfra Architecture Documentation

- Architecture diagrams, layered design, service documentation, and development procedures.

Cryonifra Liquid Delivery Platform

- Cryonifra Liquid Delivery Platform is a project focused on optimizing the logistics and distribution of liquid products through innovative software solutions. It encompasses inventory management, order processing, and delivery tracking functionalities to enhance operational efficiency. Consists of web and mobile applications built with .NET Core and .NET MAUI.

Cryoinfra Production Monitoring System

- Cryoinfra Production Monitoring System is a comprehensive solution designed to monitor and analyze production processes in real-time. It provides insights into operational performance, identifies bottlenecks, and supports decision-making to improve efficiency and quality. The system includes web dashboards and reporting tools developed using Razor Pages and .NET Core.

Cryoinfra Help Desk System

- Cryoinfra Help Desk System is a comprehensive platform designed to manage and streamline customer support operations. It includes ticketing, knowledge base, and communication tools to enhance service quality and response times. The system is built using .NET Core and WebForm Pages. Incorporates a Watson AI Assistant integration interface.

Hard.Core

- Hard.Core is a modular and extensible framework designed to facilitate rapid development of enterprise-grade applications. It provides a set of reusable components, libraries, and tools that streamline common development tasks and promote best practices.

Private CI/CD infrastructure

- A self-hosted Continuous Integration and Continuous Deployment (CI/CD) infrastructure using Local DevOps Server, Jenkins, Docker, and Ansible to automate build, test, and deployment processes for various applications.

HookHub

- A .NET-based real-time communication system built on ASP.NET Core and SignalR, enabling bidirectional messaging between multiple connected services (hooks) through a centralized hub. Used as a foundation for various tunneling and messaging applications.

Midori64/Midori128 - Lightweight Block Cipher Implementation

- Implemented Midori64 and Midori128, lightweight block ciphers designed for resource-constrained environments, focusing on security and efficiency.

Certifications and Licenses

Agile & Project Management

- Scrum Master Professional Certificate (SMPC®) — CertiProf

- Scrum Foundation Professional Certificate (SFPC™) — CertiProf

- DevOps Essentials Professional Certificate (DEPC®) — CertiProf

- Agile Project Management Professional Certificate — Atlassian

- Enterprise Design Thinking Practitioner — IBM

- Agile Explorer — IBM

Cloud, DevOps & Infrastructure

- AWS Cloud Practitioner Essentials — Amazon Web Services

- Ubuntu Linux Professional Certificate — Canonical

- Docker Foundations Professional Certificate — Docker

- DevOps Foundations: DevSecOps (2022) — NASBA

Software Development & Architecture

- Microservices Foundations Professional Certificate — Kong

- Web Development Fundamentals — IBM

- Career Essentials in GitHub — GitHub

- Career Essentials in GitHub Copilot — GitHub

Security & Testing

- Microsoft Azure AI Essentials — Microsoft / LinkedIn

- Microsoft Security Essentials — Microsoft / LinkedIn

- Introduction to Applied Cryptography and Cryptanalysis — Infosec

- Software Testing Professional Certificate — LambdaTest

- Test Automation Professional Certificate — LambdaTest

Academic and Professional Training

- Installation and Configuration of Application Servers — UAM

- Scrum Master Certification Course Diploma — Praxis

- Scrum Fundamentals — KZI-Kaizenia

- Lifelong Learning — CertiProf

Academic Activities, Conferences & Honors

International Conferences

- **LatinCrypt 2017** — Fifth International Conference on Cryptology and Information Security in Latin America. University of Havana, Cuba (Sept. 2017). Certificate of Participation.

Research Presentations

- *"Analysis of an Embedded Web Interface on an Arduino Platform and a Custom-Built Device."* 3rd Research Conference of the Systems Department, Universidad Autónoma Metropolitana (July 2014).

Programming Competitions & Honors

- **ACM-ICPC Mexico & Central America Regional Contest** — Honorable Mention ITESM (2013).

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- **ACM-ICPC Mexico & Central America Regional Contest** — Honorable Mention ITESM (2011).

- **IV Annual Programming Contest "Dennis M. Ritchie"** — Second Place IPN–ESCOM (2012).

ACM Competitive Programming Training

- ACM Student Chapter — ITESM Mexico City (2011)

- ACM Student Chapter — BUAP Puebla (2012)

- ACM Student Chapter — ESCOM-IPN Mexico City (2013)