

Manuel Agustín Motta Herrera

📍 Bogotá, Colombia | 📞 +57 301 593 1002 | ✉️ manuelmottaherrera@gmail.com
🌐 github.com/manuelmottaherrera | [in linkedin.com/in/manuel-motta](https://www.linkedin.com/in/manuel-motta) |
📄 [stackoverflow/manuel-motta](https://stackoverflow.com/users/manuel-motta)

Profile

Technical Lead and Systems Engineer with 12+ years of professional experience spanning embedded systems, enterprise .NET applications, BPM financial platforms, and modern reactive microservices. Currently leading electoral technology projects at Tyse SAS, architecting event-driven microservices with Spring Boot 3/WebFlux and AI-powered solutions. Previously spent nearly 7 years at Trycore SAS delivering BPM financial systems for BBVA (Colombia) and APAP (Dominican Republic).

Experience

Technical Lead Feb 2025 – Present
Tyse SAS – Tecnología y Servicios Electorales tysesas.com

- Leading architecture and development of an electoral scrutiny platform with 6 microservices
- Designed reactive backend services with Spring Boot 3, WebFlux, and R2DBC for high-throughput electoral data processing
- Built AI-powered WhatsApp helpdesk chatbot using Claude API with RAG (PostgreSQL full-text search)
- Architected event-driven pipeline with Kafka for E14 electoral form processing, anomaly detection, and notifications
- Implemented React frontend with Spring Cloud Gateway, JWT authentication, and Consul service discovery
- Adopted AI-assisted development workflow using Claude Code as co-developer, accelerating architecture design, code generation, and debugging
- **Stack:** Java 17, Spring Boot 3, WebFlux, R2DBC, React, PostgreSQL, Kafka, Docker, Consul, MinIO, Claude AI API, Claude Code, JHipster 8

Backend Developer | SCRUM Cell Leader Jul 2018 – Feb 2025
Trycore SAS trycore.co

- Developed process-oriented financial applications using Bonita Soft BPM for major banking institutions
- Delivered BPM solutions for BBVA Colombia and APAP Dominican Republic
- Led SCRUM cell, coordinating sprint planning, daily standups, and sprint reviews
- **Stack:** Java 8, Spring Boot, Groovy, Oracle, PostgreSQL, Bonita Soft, AngularJS, Liquibase, Maven, REST API, SOA

Embedded Developer Feb 2017 – Jun 2018
Rowel Ingeniería SAS rowel.co

- Developed firmware for electromechanical gaming system using PSoC5LP microcontroller
- **Stack:** C, PSoC5LP, Git

Jr .NET Developer Oct 2015 – Jan 2017
Mikohn Technology SAS mikohn.net

- Developed and maintained casino-oriented management and monitoring systems
- **Stack:** C#, VB.NET, SQL Server, LINQ, WPF, XAML, MVC

Jr .NET Developer Jan 2012 – Sep 2013
Geosigma Ltda.

- Built environmental and social impact calculator; designed data capture forms for field collection
- **Stack:** Microsoft Access, Visual Basic

Education

B.Sc. Systems and Computer Engineering 2014 – 2019
Universidad Nacional de Colombia Bogotá

Electronic Engineering (coursework) 2010 – 2013
Universidad Distrital Francisco José de Caldas Bogotá

Technical Skills

Backend Java 17, Spring Boot 3, WebFlux, R2DBC, Spring Cloud, Groovy, C#, .NET, C
Frontend React, JavaScript, TypeScript, AngularJS, HTML5, CSS3
Databases PostgreSQL, Oracle, SQL Server, R2DBC, Liquibase
Architecture Microservices, REST API, SOA, Event-driven (Kafka), BPM (Bonita Soft), Reactive
DevOps Docker, Docker Compose, Consul, MinIO, Git, Maven, JHipster
AI/ML Claude API (Anthropic), RAG, Full-text Search, NLP
Methodology SCRUM, Agile, Team Leadership, Sprint Planning

Awards & Certifications

2nd Place – 4th IEEE Practical Circuits Tournament, Universidad Nacional de Colombia 2015
Web Programming – HTML & JavaScript, SENA Virtual (40 hours) 2012

References available upon request