

Tito Alejandro Real Paredes

Software Engineer, Industrial Psychologist



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Parroquia La Concepción, Barrio La Florida, Quito, Pichincha, Ecuador



WORK EXPERIENCE:

CEPROPACK

01-07-2022 - Present

HEAD OF SYSTEMS

I lead the Operations and Software Development Department, overseeing the creation of commercial and enterprise technological solutions that drive the organization's digital transformation.

My responsibilities encompass the architecture, development, and maintenance of cross-platform applications, the implementation of microservices infrastructure, and the integration of artificial intelligence to optimize operational and commercial processes.

In the development realm, I specialize in building web and mobile applications using modern technologies such as React, React Native, Angular, and native Android, focusing on creating intuitive and functional interfaces that enhance user experience and operational efficiency. These applications include commercial management systems, internal enterprise platforms, and customized solutions that enable clients and collaborators to access critical information in real-time.

A significant portion of my work focuses on developing customized CRM (Customer Relationship Management) systems, designed to optimize client relationship management, automate sales processes, and provide detailed analysis of customer behavior. These systems integrate multiple communication channels and connect to our backend infrastructure through robust and secure APIs.

Cybersecurity is a fundamental pillar in my projects, especially in financial applications. I implement advanced security protocols, including data encryption, multi-factor authentication, secure token management, and continuous security audits to ensure the protection of sensitive information and compliance with international security standards.

Additionally, I lead the adoption of microservices architectures, designing and implementing decoupled services that improve the scalability, maintainability, and resilience of our applications. This architecture enables independent deployments, facilitates continuous integration, and optimizes overall system performance.

Recently, I have ventured into the development and experimentation with AI agents, exploring how artificial intelligence can automate complex tasks, improve decision-making, and provide personalized user experiences. These agents are integrated into our applications to offer intelligent assistance, predictive analysis, and workflow automation.

Technologies used:

- **React, React Native** (cross-platform development)
- **Angular** (enterprise web applications)
- **Android Studio**, Kotlin/Java (native mobile applications)
- **Microservices** (distributed and scalable architecture)
- **AI Agents** (intelligent automation)
- **CRM Development** (customer relationship management)
- **Cybersecurity** (financial applications, encryption, authentication)
- **REST APIs**, Spring Boot
- **Docker**, Cloud Infrastructure
- **Agile/Scrum** (development methodologies)
- **Git**, CI/CD

Panecua Ecuambiente

2016 – 2021

IT Consultant

Led the IT Department and collaborated closely with two developers to design, develop, and maintain software and applications that enhanced the efficiency and modernity of commercial relationships with clients.

Key responsibilities included overseeing the company's technological infrastructure, ensuring secure, reliable, and efficient operation of all systems and networks, and directly contributing to software development projects. As Scrum Master, I facilitated Agile development practices, ensuring that all team members adhered to Agile methodologies, fostering collaboration and continuous improvement.

In terms of development, our main focus was on creating web and mobile applications that allowed clients to easily access up-to-date information about their accounts, progress on key goals, and visual representations of important data. These master-detail interfaces made data more digestible and user-friendly. To achieve this, I implemented the necessary infrastructure for secure client-server communication, ensuring that clients could connect to our servers, gather real-time data, and interact with their personal accounts.

We built mobile applications using **Android (Kotlin)**, which provided clients with on-the-go access to specific information from our servers, facilitating active data exchange. These applications leveraged modern Android technologies such as **Jetpack Compose**, **Retrofit**, and **Coroutines** to ensure a smooth, efficient connection with the server, avoiding performance bottlenecks. The server infrastructure was hosted on **Azure Cloud**, and clients accessed their accounts through RESTful APIs built with **Spring Boot**. This allowed us to maintain a secure, reliable environment where clients could access their accounts and monitor performance metrics.

One of the standout projects was the development of a **Kotlin Android application** using **Mapbox**, which allowed clients to geographically locate the areas in which they conducted their business activities, particularly in the agricultural sector. This data was then recorded on our server and used to calculate compensation based on the costs of territorial movement.

Additionally, I developed an internal **Java desktop system** that managed the administrative needs of various departments, including Finance, HR, and Marketing. This system ran on a local server, serving both internal users and providing direct support for our internal infrastructure, including database management and system maintenance.

Technologies used:

- **Agile** (Scrum Master), **Spring Boot**, **Azure Cloud**, **REST APIs** (4 years)
- **Android Studio**, **Kotlin** (4 years, Java 2 years),
- **Jetpack Compose**, **Retrofit**, **Coroutines**
- **Java** (desktop systems)
- **Mapbox** (geolocation functionality)
- **Master-detail interfaces**
- **Linux Server**
- **Docker Microservices**

Coneca / Grupo Chevrolet

Systems Analyst

2014 – 2015

As a Systems Analyst, I was responsible for designing, developing, implementing, and maintaining software applications and systems tailored to the specific needs of the company. My role involved providing comprehensive technical support to users, assisting them with troubleshooting issues, answering questions, and conducting training sessions on the proper use of applications and systems. I also managed the ongoing maintenance, updates, and customizations of the company's **ERP software**, which played a critical role in enterprise resource management.

In addition to system maintenance, I was tasked with coordinating the acquisition, installation, and management of computers, software, and other technological resources essential for the company's operations. A key part of my responsibilities was ensuring the performance, security, and availability of the company's servers, while also implementing robust data backup and recovery measures to safeguard vital information.

A major project I spearheaded was the development of a **web-based system** that allowed sales personnel to securely log in to the company's **local server** using their individual credentials. Through this system, sales representatives could input, review, and track their sales metrics, client details, and overall progress toward meeting their sales quotas. This system centralized all individual sales data and enabled the consolidation of reports across the entire sales department, providing valuable insights into performance metrics and trends.

Furthermore, I developed **two mobile applications** to extend the accessibility of our systems. The first mobile application, built using **Android (Java)**, allowed sales personnel to perform the same tasks they could from their desktops but through their mobile devices. They could securely log in as **API clients** to the local server's **REST API** (built with **Spring Boot**) and manage their sales activity in real time, regardless of their location. This solution significantly increased the efficiency and flexibility of the sales team.

The second mobile application, also developed in **Android (Java)**, was designed for **clients of the company**. It provided customers with an intuitive interface to connect to the company's web service and check the status of their loans. This included details such as paid installments, outstanding payments, interest, principal payments, and their consolidated debt. The application emphasized **UX design**, featuring **user-friendly interfaces**, and was built using modern Android development practices, such as **Retrofit**, **Coroutines**, and **Master-Detail Interfaces** to ensure smooth data retrieval and a positive user experience.

Technologies used:

- **ERP Software Maintenance**
- **Android (Java)** (one year), **Retrofit**, **Coroutines**
- **Master-Detail Interfaces**
- **Spring Boot** (REST APIs for one year)
- **UX/UI Design**
- **Server Management, Data Backup & Recovery**

Tektron

Human Talent Manager

2006 – 2014

As the Human Talent Manager, I played a pivotal role in driving the company's overall strategic objectives by designing and implementing comprehensive human talent management strategies that aligned with Tektron's vision and goals. My focus was on creating value-added initiatives, transforming the human resources department from a primarily administrative function into a strategic partner that contributed directly to the company's success.

One of my key responsibilities was leading workforce planning, which involved conducting detailed **skills gap analyses** to identify critical areas for development and ensuring the recruitment of top talent. I developed and executed recruitment and retention plans that successfully brought in highly qualified individuals, building a strong, competent workforce.

To enhance efficiency, I automated many of the routine tasks within the department by implementing **updated human resources software** that managed all aspects of HR, including recruitment, onboarding, training, and employee performance tracking. This allowed the department to focus on high-value activities such as optimizing workforce productivity and aligning talent development with the company's strategic objectives.

A significant initiative I spearheaded was the **strategic planning** process for the entire company. I designed and implemented this process, ensuring all departments were involved in setting measurable goals aligned with corporate objectives. I led the training for company leaders and department heads on the **Balanced Scorecard methodology**, a strategic performance management tool that tracked key performance indicators (KPIs) and linked them to the achievement of the company's objectives. This initiative enabled a more data-driven and measurable approach to performance tracking and management across the organization.

Additionally, I implemented **organizational development programs** aimed at fostering professional and personal growth among employees, thereby creating a performance-oriented corporate culture. I monitored the return on investment (ROI) of training programs through comprehensive follow-up processes and developed a detailed workload analysis using **industrial engineering methods** to optimize labor distribution and ensure efficiency.

Technologies used:

- **HR Software** for automating recruitment, onboarding, training, and performance evaluation processes.
- **Balanced Scorecard** for tracking strategic performance indicators and aligning department goals with corporate objectives.
- **Industrial Engineering Methods** for analyzing workloads and optimizing productivity.
- **Training Management Systems** for tracking ROI and ensuring the effectiveness of development programs.

Inducalsa / Bunky

HR Lead

1991 – 1996

In my role as HR Lead at Inducalsa / Bunky, I was responsible for managing and coordinating all key areas of human resource management, encompassing **personnel management, occupational health and safety, labor relations, and employee services**. My primary focus was on ensuring that the company operated efficiently and complied with all relevant labor regulations while fostering a harmonious workplace environment.

A significant aspect of my role was leading and coordinating the operations of several critical departments, including **Medical Services, Industrial Safety, Labor Relations, Payroll, and Recruitment & Selection**. I ensured these areas functioned seamlessly to support the company's overall objectives and ensure employee satisfaction and productivity.

One of my biggest challenges and accomplishments was driving the company's effort to achieve **ISO 9000 certification**, a rigorous quality management standard. This involved a **three-year process** in which I played a key role in training all employees on the **ISO methodology** and implementing the tools necessary for the certification. I developed and executed comprehensive training programs, ensuring the workforce was prepared to adopt the standards, and coordinated the implementation of control, optimization, and process development tools throughout the organization. The successful ISO 9000 certification was a milestone achievement that improved operational efficiency and enhanced the company's reputation in the industry.

I also managed the company's **labor relations**, working directly with three labor unions. This required excellent **communication and negotiation skills** to maintain positive relationships and resolve disputes. My approach focused on promoting transparency, mutual respect, and collaboration to resolve conflicts and negotiate collective agreements that balanced both the company's needs and the employees' rights. My ability to build trust with union representatives helped maintain a stable and productive work environment, even in challenging situations.

Additionally, I was responsible for overseeing the **occupational safety and health** policies within the company. I implemented procedures that ensured compliance with safety regulations, reducing the risk of workplace accidents and occupational diseases. In parallel, I supervised the **general services** department, ensuring that the workplace remained clean, safe, and well-maintained. I also coordinated **employee transportation**, ensuring punctuality and safety in commuting to and from the workplace.

Technologies and Tools used:

- **ISO 9000 methodology:** Led the implementation of quality management tools and training programs necessary for certification.
- **Human Resource Management Systems (HRMS):** Utilized to automate and manage payroll, recruitment, and employee data.
- **Occupational Health & Safety Software:** Used to monitor and enforce compliance with safety regulations and track incidents.
- **Communication and Negotiation Tools:** Employed strategies and systems to enhance labor relations and ensure effective communication with union representatives.

TEACHING EXPERIENCE:

ICAM

Instructor

1997 – 2005

During my tenure as an instructor at ICAM, I was responsible for designing and delivering **comprehensive training programs** that addressed key areas such as **motivation, teamwork, leadership, human relations, and emotional intelligence**. These programs were tailored to the specific needs and goals of municipal employees, focusing on improving their performance, morale, and overall work environment.

A significant challenge I faced was transforming the **defeatist mentality** of many municipal employees, who were often burdened by an excessively bureaucratic mindset and dissatisfaction with their leadership. To address this, I introduced **modern, interactive teaching methodologies** that significantly enhanced engagement and learning outcomes. I utilized a wide range of **audio-visual aids**, such as **computers, projectors, videos**, and **audio tools**, creating **dynamic and participative training sessions** that were far more productive and enjoyable for the participants.

I placed a strong emphasis on **promoting teamwork and collaboration** within the municipal workforce. Through practical exercises and group activities, I helped strengthen **team cohesion** and **improved communication** between employees, fostering a more cooperative and supportive work environment. The training sessions I facilitated were designed not only to teach technical skills but also to **inspire and motivate employees**, equipping them with the tools and strategies needed to overcome challenges and stay committed to their work.

One of my key contributions was developing a **methodology for evaluating the return on investment (ROI) in training** for the **Quito Municipality**. This methodology involved closely tracking the **performance of employees** after completing training programs, ensuring that the skills and knowledge gained were being effectively applied in their work. By conducting follow-ups and using clear metrics, I was able to demonstrate the tangible impact of the training programs on employee productivity and organizational performance.

I was also responsible for continuously evaluating the **effectiveness of the training programs**, using various **assessment tools** and feedback mechanisms to ensure that the courses remained relevant, impactful, and aligned with the needs of the municipal employees and the organization as a whole.

Key Contributions and Projects:

- **Innovative Training Programs:** Designed and implemented training sessions that used **modern technology** and **didactic tools** (audio-visual aids, computers, videos) to increase engagement and retention.
- **Change Management:** Successfully fostered a positive mindset towards change in a heavily bureaucratic and resistant environment by using motivational and team-building strategies.
- **ROI Evaluation Methodology:** Developed a **customized methodology** for the **Quito Municipality** to assess the effectiveness and return on investment in employee training, ensuring long-term improvements in performance.
- **Team Building and Leadership Development:** Promoted **collaborative work environments** through interactive exercises that improved communication and team cohesion.
- **Performance Tracking:** Conducted **post-training performance evaluations** to assess the practical application of skills learned and their impact on the organization.

Thomas Alva Edison High School

Computing Department Leader

1988 – 1991

As the leader of the Computing Department, my primary responsibility was to **establish and implement the computer education program**, a new area of knowledge that had not been part of the institution's curriculum before. I took the initiative to actively advocate for

its creation, ensuring that **computer science** became an integral subject in the students' academic formation.

One of my key achievements was **generating enthusiasm** among students for **computing and technology**, at a time when very few schools were taking this emerging field seriously. I successfully fostered a passion for technology and programming among both boys and girls, inspiring many to consider pursuing careers in **informatics**—as it was referred to in those days. This was an area that was just beginning to gain traction, and I was proud to contribute to its integration into the educational system.

I spearheaded efforts to **secure a budget** for the acquisition of the latest computer hardware and software, ensuring that students had access to **modern technology**. My leadership helped the school not only build a fully-equipped computer lab but also **participate in inter-school competitions**, where students showcased their skills by developing simple applications. These initiatives were highly successful, and our school consistently achieved significant recognition in these competitions.

Additionally, I utilized my role as a **computing instructor** to promote the importance of **English language learning**. I made a strong connection between the **English language** and **technological education**, emphasizing to students the importance of mastering English as a second language to thrive in the rapidly evolving technological landscape. By integrating **English language usage** into the computing curriculum, I ensured that students understood its significance in the global tech industry, further enhancing their career prospects.

Key Responsibilities and Projects:

- **Pioneering the Computing Curriculum:** Took the initiative to develop and establish the **computer science curriculum** from the ground up, aligning it with both national and international educational standards.
- **Inspiring Students:** Successfully cultivated a strong interest in **computing and technology** among students, encouraging them to pursue careers in **informatics** during a time when the field was still emerging.
- **Inter-School Competitions:** Led the school to **participate in inter-school computing competitions**, where students demonstrated their programming skills by creating simple applications, resulting in notable successes and recognition.
- **Budget Management and Resource Acquisition:** Secured a **significant budget** for acquiring modern computers, software, and other necessary resources, ensuring students had access to up-to-date technology.

- **English Integration in Computing:** Promoted the use of **English in computing education**, emphasizing its importance for students' future success in technology-related careers.
- **Teacher Development:** Supervised and supported teachers in the computing area, organized training sessions, and facilitated their professional growth to ensure a high standard of teaching.
- **Technology Management:** Managed the **technological resources** of the department, ensuring that hardware, software, and networks were maintained, updated, and secured.

Thomas Alva Edison High School

English Department Leader

1986 – 1988

At the young age of 19, my first major challenge as the English Department Leader was to **gain the respect** of students who were almost my age. I initially joined as a temporary replacement for a teacher who had an accident, but after his recovery, he decided not to return, which led to my appointment as the **permanent lead English instructor**. At that time, **English was perceived as an unimportant, filler subject**, with minimal engagement from students. My role was to change this perception and emphasize the importance of English as a **crucial skill** that would serve them in their future professional endeavors.

I began by **innovating the teaching methods**. Unlike my predecessor, who did not speak the language fluently, I ensured that **English was spoken consistently** in the classroom. I also took the initiative to **write my own teaching materials**, creating custom textbooks and exercises that helped students progress step by step in a structured and **methodological manner**.

One of my most rewarding experiences was learning to **manage different age groups**. Initially, I worked primarily with older students, but I soon expanded to teach both younger and older students at the school. This allowed me to **adapt my teaching style** to different learning stages, from beginners to more advanced students.

Given the limited access to modern educational technologies at the time, I introduced **emerging audiovisual technologies** to the classroom. I incorporated audio recordings and video content into lessons, allowing students to engage with the language in a more immersive way. I also introduced methodologies that combined **music, poetry, and creative writing** with the traditional teaching of English as a foreign language. These innovations made the classes more dynamic and enjoyable, transforming the subject into one that students **loved** and truly valued for their futures.

Key Responsibilities and Achievements:

- **Curriculum Leadership:** Designed, updated, and supervised the **English curriculum**, ensuring alignment with national and international standards, while also creating custom study materials.
- **Innovative Teaching Methods:** Introduced **audiovisual tools** such as music and video, alongside traditional teaching methods, to create an engaging and effective learning environment.
- **Fostering a Love for English:** Successfully changed students' perception of English from a "filler subject" to a critical, **valued skill** for their professional futures, by emphasizing its relevance in their personal and career development.
- **Teacher Supervision and Development:** Supervised and supported a team of eight English teachers, conducting **class observations** and providing feedback to foster **continuous improvement**.
- **Student Progress and Evaluation:** Developed assessment tools, analyzed performance data, and implemented **strategies to improve student outcomes**, ensuring they were well-prepared for future opportunities.
- **Age Group Adaptability:** Adapted teaching strategies for different age groups, creating engaging lessons for both **young children** and **teenagers**.

COURSES & TRAININGS:

- **Oracle One Scholarship – Alura LATAM** (*In progress, expected completion February 2025*)
Currently pursuing the **Oracle One Scholarship** through **Alura LATAM**, a program aimed at developing technical skills in software development. Upon completion in February 2025, I will be **certified as a backend developer**, having gained proficiency in backend programming languages, database management, and API development.
- **INCAE Business School – HR Certificate, 2001**
Obtained a certificate in **Human Resources Management** from INCAE Business School, which serves as the Harvard Business School extension for Central

America. This course equipped me with advanced skills in HR management, focusing on leadership, team dynamics, and organizational development.

- **IDE – Diplomado PDD - Desarrollo de Habilidades Directivas**
Completed the **Diplomado en Desarrollo de Habilidades Directivas (PDD)**, a prestigious executive development program designed for **promising young professionals**. Sponsored by my company, this training aimed to prepare future leaders for **high-level management positions**, focusing on key leadership, decision-making, and strategic management skills.

EDUCATION:

- **Instituto Tecnológico Superior Cordillera**
Technical Degree in Software Engineering, 2024
- **Universidad Central del Ecuador**
Bachelor's Degree in Industrial Psychology, 1991
- **Colegio Sebastián de Benalcázar**
Bachiller en Humanidades Modernas (High School Diploma in Modern Humanities)

SKILLS:

- Scrum Master
- Agile
- Proficient in Kotlin
- Android Development
- API Integration
- Scrum Master
- Agile Methodologies
- Project Management
- Software Engineering
- Curriculum Development
- Training Facilitation

- Human Resources Management
- Labor Relations
- Performance Evaluation
- Technology Integration
- Emotional Intelligence
- Change Management.

ONGOING PROJECTS:

Although I have always been involved in the software development field, I completed my formal studies in April of this year. Since then, I have gradually resumed my professional career as a freelance developer. Currently, I am working on a variety of projects, ranging from website development to educational applications and Android Kotlin applications tailored for companies.

One of my ongoing projects is an Android Kotlin app for an insurance company. The app enables customers to track their claims through their mobile devices, providing real-time updates throughout the entire process. This includes the submission of initial paperwork, claim approval, policy coverage details, notifications regarding deductible payments, repair scheduling, and the final delivery of the vehicle. Clients can conveniently monitor each stage directly from their phones, ensuring transparency and efficiency in handling their claims.

I work in a collaborative environment alongside a team of professional colleagues, and we frequently refer clients to each other, enhancing our network and project reach.

Technologies used:

- Agile methodologies (Scrum Master), Spring Boot, Azure Cloud, REST APIs
- Android Studio, Kotlin
- Jetpack Compose, Retrofit, Coroutines
- PHP Web Apps and Web Services