Felipe Cordero

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Summary of Qualifications

- Full Stack Developer with 12+ years of hands-on Python development and 3+ years of React experience, specializing in scalable web applications and RESTful APIs for enterprise systems.
- Proven expertise in PostgreSQL database design, optimization, and query tuning for high-performance applications with complex data relationships and regulatory compliance requirements.
- Experienced in Generative AI technologies, including LLM-based agents, coding assistants, and AI compliance frameworks, with practical application in production environments.
- Strong background in OOP principles, design patterns, and clean code architecture, applying DRY, YAGNI, and SOLID principles to maintainable codebases.
- Demonstrated ability to work with global distributed teams in Agile Scrum environments, participating in daily stand-ups, sprint planning, and code reviews.
- Proven track record in comprehensive unit testing, test-driven development, and writing thorough test suites covering all major logic components.
- Over 20 years of hands-on experience with Linux/Unix systems, including advanced shell scripting for automation, deployment, and infrastructure management.
- Experienced project manager with expertise in leading technical teams, strategic planning, and delivering complex solutions on time and within budget.

Professional Experience

AI and Full Stack Developer, Fireraven – Montréal, Canada   May 2025 – Present

- Design and develop scalable full-stack solutions using Python (FastAPI, NestJS) and React (Next.js, TypeScript) for LLM-based security and compliance platforms, ensuring 50/50 split between backend and frontend development.
- Implement and optimize PostgreSQL database schemas, queries, and data pipelines, handling complex relationships and ensuring regulatory compliance for financial-grade applications.
- Apply OOP principles and design patterns (DRY, YAGNI, SOLID) to refactor legacy code, improve code maintainability, and reduce technical debt across multiple repositories.
- Collaborate with global distributed teams in Agile Scrum environment, participating in daily stand-ups, sprint planning, retrospectives, and cross-functional code reviews.
- Leverage Generative AI technologies and coding assistants to enhance development velocity, implement LLM-based features, and ensure compliance with AI regulations.
- Write optimized, efficient, and clean Python code following best practices, with expertise in asynchronous programming, API design, and microservices architecture.
- Utilize Linux/Unix systems and shell scripting for deployment automation, container orchestration with Docker, and cloud infrastructure management on GCP.

Senior Software Developer, ObraLink – Remotely (Chile)   Aug. 2023 – May 2025

- Designed and developed scalable REST APIs using Python (FastAPI) and React for construction management platforms, implementing efficient PostgreSQL database schemas and optimizing queries for high-performance data processing.
- Built comprehensive full-stack web applications with React frontends and Python backends, implementing real-time data visualization, 3D rendering, and interactive dashboards.
- Led development of ML models for predictive analytics, integrating with existing business systems through well-designed APIs and ensuring seamless data flow across microservices.
- Implemented test-driven development practices with comprehensive unit and integration test suites, ensuring code reliability and maintainability.
- Managed project timelines, coordinated with cross-functional teams, and delivered complex features on schedule while maintaining high code quality standards.

Structural Engineering Team Lead and **R&D Coordinator**, Sirve Engineering –   Mar. 2019 – Mar. 2022
Santiago, Chile

- Directed R&D for software tools using Python, reducing initial engineering and structure sizing time by 75% through

innovative automation and optimization solutions.

- Managed multiple high-rise residential and commercial complexes (~20,000 m² each), demonstrating expertise in complex project management and technical leadership.
- Developed automation scripts using Python and shell scripting, streamlining operations and improving efficiency across engineering workflows.

Structural Engineer, Various Engineering Firms – Santiago, Chile   2010 – 2018

- Designed seismic-resistant structures for multiple engineering firms, focusing on custom solutions and compliance with building codes and safety regulations.
- Developed custom calculation tools and automation scripts to streamline structural analysis and design processes, improving efficiency and accuracy.
- Mentored junior engineers, providing technical guidance and training on structural engineering principles, design methodologies, and best practices.

Education

Collège LaSalle Montréal, AEC: Artificial Intelligence and Machine Learning   Sept 2023 – Present
University of Chile, Bachelor's Degree in Civil Engineering   2004 – 2011

Achievements

Academic Excellence Scholarship, Collège LaSalle Montréal – Sponsored by Air Canada   2025

Outstanding Student, University of Chile – School of Engineering and Sciences   2009

Skills & Knowledge

Python & Backend: Python (12+ years), FastAPI, NestJS, RESTful API Design, Asynchronous Programming, OOP, Design Patterns, Unit Testing (pytest), Linux/Unix, Shell Scripting, Microservices Architecture.

React & Frontend: React (3+ years), Next.js, TypeScript, JavaScript, HTML, CSS, Component Architecture, State Management, Unit Testing (Jest), Responsive Design.

Database & Data: PostgreSQL, SQL Query Optimization, Database Schema Design, Data Pipeline Development, SQLModel, ORM Patterns.

AI & GenAI: LLM-based Agents, Generative AI, Coding Assistants, AI Compliance Frameworks, LangChain, HuggingFace Transformers.

DevOps & Tools: Docker, Git, CI/CD Pipelines, GCP, Agile Scrum, Test-Driven Development, Code Reviews, Automated Testing.

Project Management & Leadership: Project Management, Technical Team Leadership, Strategic Planning, Cross-functional Collaboration, Agile Methodology, Stakeholder Communication, Problem Solving, Analytical Thinking.

Languages: English (IELTS C1), French (TCF B2), Spanish (Native).