Juan Manuel Decoud

Software & Integrations Engineer · Computer Engineering Student

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SUMMARY

Computer Engineering student (69% completed) at Universidad Austral, currently at Darwin AI as a Support & Integrations Engineer. I build full-stack systems, cloud infrastructure on Microsoft Azure, and CRM/API integrations, with experience in microservices, CI/CD with Docker, and workflow automation. Currently building a web platform to benchmark AI models and agents across different harnesses and tools as a year-long capstone for a real client.

TECHNICAL SKILLS

Languages: Python, Java, Kotlin, TypeScript, JavaScript
Web & Frameworks: Flask, NestJS, React, REST APIs, HTML/CSS
Cloud & DevOps: Microsoft Azure (VMs, infrastructure), Docker, CI/CD, Git, Gradle
Databases: PostgreSQL, MySQL
Integrations & Automation: n8n, Zapier, HubSpot, Salesforce, Pipedrive, Webhooks, OAuth 2.0, JWT, Auth0
IoT & Embedded: ESP32, MQTT, Embedded C
Engineering Practices: Software design, SOLID principles, design patterns (GoF), testing (JUnit, TDD), Agile

PROFESSIONAL EXPERIENCE

Darwin AI — Support & Integrations Engineer

Buenos Aires, Argentina · Jul 2025 – Present · Intern (Jul – Dec 2025), Part-time (Dec 2025 – Present)

AI-powered sales-automation platform integrated with clients' CRMs to qualify and follow up on leads.

- Design end-to-end automation workflows in n8n and Zapier — webhooks, conditional branching, data transformations, and multi-step pipelines.
- Integrate HubSpot, Salesforce, and Pipedrive with the platform: field mapping, OAuth / API-key authentication, and bidirectional data consistency.
- Diagnose and resolve integration failures, broken flows, and API errors, prioritizing fast triage and permanent root-cause fixes.
- Lead end-to-end client onboarding, translating client requirements into integration specs and maintaining internal documentation.

SELECTED PROJECTS

AI & Agent Benchmarking Platform — Laboratorio III (in progress, 2026)

Year-long capstone delivered for a real client: a web platform to benchmark AI models and agents across different harnesses and tools.

Snippet Searcher — Microservices Platform (2025)

Systems Engineering capstone (team of 3). Built PrintScript, a custom programming language in Kotlin (streaming lexer, AST parser, interpreter, configurable formatter, static analyzer) following SOLID and GoF patterns, then architected an 8-service microservices platform on Azure with Auth0 and full Docker CI/CD. Led cloud infrastructure and pipeline setup.

Vexa — Desktop & Mobile Invoicing App (2025 – Present)

Solo-built Python billing application replacing a legacy Microsoft Access system, structured as a monorepo with a UI-agnostic core (SQLAlchemy 2.0 / SQLite) shared by a PySide6 desktop app and a Flet Android app. Implements AFIP/ARCA electronic invoicing (SOAP WSAA/WSFEv1 with CMS digital signing), ReportLab PDF generation, and a 121-test suite (pytest-bdd BDD scenarios + Appium visual E2E).

Sonora — Full-Stack Cloud Web App (2025)

Full-stack application with a React frontend and NestJS backend deployed on Azure. Contributed across frontend, backend, and database, with primary responsibility for cloud infrastructure and deployment.

Other projects: Ubica2 — Flask + PostgreSQL parking-management system with role-based access control; Chess & Checkers engine in Java (GoF patterns, JUnit).

EDUCATION

Universidad Austral — Bachelor's in Computer Engineering · Buenos Aires · 2023 – Present

69% completed (43 subjects passed). Coursework in software development, systems architecture, embedded systems, algorithms, and networking.

Instituto Gabrielle D'Annunzio — Secondary degree, Economics orientation · 2022

LANGUAGES & COURSES

Languages: Spanish (native) · English (intermediate — written and spoken)
Courses: Coursera — Responsive Web Design with Bootstrap 4; Blockchain Disruption.