

# JUAN SUTIL PALMA

\$ software engineer · machine learning — santiago, chile

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## ## summary

Software engineer (backend · data · ML) with a BSc in Astrophysics and a BEd in Physics, both with highest distinction. Currently founding software engineer at **pin** — legal document intelligence, in production. I ship systems with measured impact — **+60% workflow efficiency, tests 0→67%, clients 4→20+** — across legaltech, healthtech, B2B SaaS, and IoT+ML, combining scientific rigor with hands-on execution.

## ## experience

**founding software engineer @ pin** jul 2026 — present

- > Legal document intelligence, built end to end and in production (private demo, real users): local-first OCR cascade over scanned case files, hybrid retrieval (FAISS + SQLite FTS5), and Q&A where every claim carries a verifiable citation to the exact page.
  - > Measured and \$0 operating cost: 30k+ pages ingested at ~10–100 pages/s locally; 98.5% retrieval recall@k50; ~2,000 automated tests (pytest, Vitest, Playwright). React app + terminal UI over the same engine.
- # python · fastapi · react · faiss · sqlite fts5 · paddleocr / qwen-vl · textual

**full-stack development software engineer @ HealthAtom** oct 2025 — may 2026

- > Core modules of cloud healthtech products (Dentalink · Medilink · Gerty) used by clinics across Latin America — from design to production on high-availability services.
  - > Code reviews, automated testing, and database design, shipping with Product, QA & Support.
- # python · php · sql · git · ci/cd

**founding first software engineer @ Talia** apr — oct 2025

- > Led architecture + MVP (TRL 7–8) of acoustic illegal-logging detection: solar ESP32/LoRaWAN edge sensors, PyTorch audio classification, FastAPI backend, React alert dashboard.
  - > Lab & field testing; technical liaison for the Entel Digital – U. de Concepción alliance.
- # ongoing intermittent advisory · python · pytorch · fastapi · react · c++ · esp32 · lorawan

**full-stack software engineer @ Reimpact** jan 2023 — feb 2025

- > Engineer #2 on a B2B environmental-compliance SaaS (Chile's EPR law 20.920): led the platform's complete migration and integration, front end and back end.
  - > Scaled clients 4 → 20+; core workflows +60% efficiency; automated test coverage 0% → 67%+ (unit + E2E); dashboards, APIs, CRM/ERP integrations; AWS infra.
- # php · laravel · phpunit · aws · sql · git

**also** — backend contract @ RoiLabs: serverless AWS (Lambda, Step Functions, DynamoDB), Python/Go (2024) · sole science advisor for “¡Manos al experimento!”, a 13-episode children's science TV series (CNTV, 2025) · freelance microservices, scraping & data tooling (2025) · astrophysics research @ PUC Chile: thesis “On the Formation of Hot Jupiters” + radio-telescope calibration & HI 21 cm spectroscopy (AIUC, 2019–2022) · HS physics teacher (2022).

## ## projects — private repos · live walkthrough: [jjsutil.github.io](https://jjsutil.github.io)

- > **vi2bo** — video → typeset PDF: transcribes lectures and recipes into structured Markdown, then LaTeX-compiles print-quality documents (equations test-compiled before embedding); in production.
- > **roadway speed sensing** — vehicle tracking and speed-violation detection on highways (YOLO, Detectron2) — computer-vision MVP.
- > **street decay mapping** — road-quality degradation detection across cities by fine-tuning on Mapillary street imagery — ML MVP.

## ## education

- > BSc in Astronomy (Astrophysics) — PUC Chile, 2017–2021 · highest distinction
- > BEd in Physics & Natural Sciences — PUC Chile, 2019–2022 · highest distinction
- > Machine Learning in Python with scikit-learn (MOOC) — FUN / Inria, 2025–2026

## ## skills

**code** → python · php · sql · typescript · go (familiar: c++, r)

**practices** → tdd · plan-before-code · measured bake-offs · frozen data contracts · small scoped prs · ci gates

**ml / data** → pytorch · scikit-learn · yolo/detectron2 · rag & llm pipelines · faiss · ocr (paddle, vlm) · pandas · numpy · scipy · bayesian stats

**web / backend** → fastapi · laravel · django · react · rest apis

**cloud / devops** → aws (lambda, step functions, dynamodb) · docker · github actions · linux · pytest / phpunit / playwright

**hardware & languages** → esp32 · arduino · lorawan | spanish native · english b2+ · portuguese basic

// one page by design — full history: [linkedin.com/in/jjsutil](https://linkedin.com/in/jjsutil) · updated aug 2026