Pedro Pini

Senior full-stack engineer at Siemens Mobility, building rail safety, IoT and enterprise platforms with .NET, Angular and React.

pedropini.tech@gmail.com pedropini.com github.com/PedroPini linkedin.com/in/pedropini youtube.com/@pinipedro
Australia

PROFILE

I'm a senior full-stack engineer at Siemens Mobility, where I build the .NET and Angular systems behind global rail projects where software where safety requirements and uptime aren't negotiable.

Before Siemens, I worked across enterprise Oracle and C# integration in Brazil, IoT and embedded platforms in Australia, and a stint running my own software studio that taught me as much about scoping and pricing work as about shipping it.

I also taught the Diploma of IT part-time, publish on YouTube, and build developer tools on weekends. I'm most useful on teams solving hard backend problems that still have to feel simple to the people using them.

EXPERIENCE

Siemens
September 2025 – Present
Senior Full Stack Software Engineer
Australia

Deliver cross-stack changes across Angular 18, TypeScript, API workflows, auth/RBAC and deployment configuration for an enterprise microservices platform spanning multiple client environments.

- Build back-end services with .NET Core and EF Core behind modular, high-performance APIs, and ship Angular 18 and Material UI dashboards that turn rail operations data into workflows operators can act on.
- Harden OAuth 2.0, Keycloak and Open Policy Agent authorization paths, reducing auth regression risk and making RBAC behaviour easier to validate across distributed services.
- Operate and troubleshoot Docker Swarm deployments across multiple client environments, managing service configuration, application deployments, updates, and runtime issues.
- Hold the line on unit and integration coverage to meet Siemens Mobility rail safety standards, partnering with cross-functional teams to shape features around operational requirements.

Equinim College
April 2025 – June 2026
Course Instructor (Casual)
Australia

Taught Python, JavaScript, AI and Blockchain in the Diploma of IT program, alongside full-time engineering work.

- Designed industry-aligned curriculum with hands-on projects, covering fundamentals end to end — syntax, variables and I/O through conditionals, loops, testing and debugging.
- Ran live demonstrations and guided coding sessions rather than leaning on theory, helping students debug both their code and their development environment.
- Adapted explanations across very different technical backgrounds and levels of English, building students toward working independently with code.
- Teaching made me significantly better at turning abstract technical ideas into something concrete and clear.

Mooxed
January 2025 – September 2025
Founder & Full Stack Consultant
Australia

Founded a studio building custom software for small businesses, and took it from zero to paying clients.

- Delivered client projects end to end on Next.js, TypeScript, Node.js, Postgres, C#, React, Docker, Linux and GCP.
- Owned everything engineers usually never touch: sales, scoping, pricing, support and product calls.
- Shipping on my own dime made me far sharper about which technical decisions are actually worth paying for.

BustleTech
September 2023 – December 2024
Senior Software Engineer
Australia

Reduced bulk invoice processing from 3 hours to 30 minutes by architecting a distributed Agenda.js job queue with parallel workers, retries and failure recovery.

- Led migration of a 50K+ LOC Meteor.js monolith to React and TypeScript, introducing unit tests, typed module boundaries and safer incremental delivery paths.
- Owned CI/CD and zero-downtime release practices for the Lead Roster platform, supporting 10K+ active users without disrupting sales operations.

- Reduced P0 incident risk by improving observability, debugging production issues, and turning recurring customer-facing failures into permanent fixes.
- Ran complex MongoDB queries and data migrations, working with business analysts to align features with business needs.

RaptorTech
December 2019 – September 2023
Software Engineer
Australia

Improved API response times from 4 seconds to 800 ms by tuning PostgreSQL queries, adding indexes, introducing Redis caching and using TimescaleDB hypertables.

- Built a high-throughput IoT ingestion layer with Node.js, Express, MQTT, GCP and NGINX, processing data from 50+ ESP32 edge devices.
- Created a Python automation framework with Selenium and OCR that reduced manual video analysis from 6 hours to 1.2 hours per batch.
- Delivered real-time operational tools across React Native, Socket.io and Django REST for dispatch visibility, KPI reporting and leadership decision-making.
- Stood up Postgres with PostGIS for geoJSON support, and configured infrastructure with Docker, Dokku, Nginx Proxy Manager and Ubuntu Server.

Indra
December 2018 – October 2019
C# Developer
Brazil

Migrated 8 critical insurance integration services from legacy BPEL to C#/IIS within 3 months, preserving backward compatibility while improving testability and reducing maintenance overhead.

- Migrated the Oracle SOA bus to .NET WCF services integrating with Oracle databases.
- Rebuilt SOA BPEL flows in C#, testing APIs with SoapUI and applying singleton and facade patterns backed by unit tests.
- Deployed executables on IIS for Windows Server, working directly with clients to determine project requirements.

Wipro
June 2017 – November 2018
Software Analyst Trainee
Brazil

Built BPEL and ODI integrations between legacy systems, Oracle Retail Merchandising, Microsoft SQL Server, XML/JSON payloads and REST APIs on Oracle WebLogic.

- Created web service APIs and integrated SQL Servers through WebLogic.
- Wrote procedures, functions and queries in PL/SQL.
- Managed ETL processes migrating data from legacy databases to new systems.

DS Aplicativos
October 2016 – June 2017
PHP Developer
Brazil

Developed new features for the AgendaBit and LocalBit systems in PHP and CodeIgniter.

- Implemented front-end functionality with AJAX, jQuery and Bootstrap.
- Redesigned legacy code, applying object-oriented principles and the Factory design pattern.
- Provided training for new employees and supported end users.

EDUCATION

IFSP
2015 – 2018
Systems Analysis and Development — Computing

ICT Skills Assessment — Australian Computer Society (ACS) · June 2022

Languages — English (Fluent) · Portuguese (Native)

SKILLS

Languages	TypeScript · JavaScript · C# · Python · SQL · Swift
Frontend	React · Next.js · Angular · React Native · Meteor.js · Tailwind CSS
Backend	Node.js · Express · .NET Core · EF Core · Django REST · REST APIs · GraphQL · Socket.io · Microservices
Data & Messaging	PostgreSQL · TimescaleDB · SQL Server · Oracle · PL/SQL · MongoDB · Redis · PostGIS · MQTT
Cloud & DevOps	GCP · Docker · Docker Swarm · Kubernetes · Linux · NGINX · Cloudflare · CI/CD · Git · Selenium
Security & Auth	OAuth 2.0 · Keycloak · Open Policy Agent · RBAC

SELECTED PROJECTS

Hangar August 2026 - Present

I kept forgetting which agents, skills and plugins I actually had installed, so I built a terminal-native picker that reads the real filesystem. No browser, no account, no catalog to maintain — it just reads the portable `.agents` convention and adapts to Claude Code, Codex, Cursor, Gemini CLI and Copilot.

Node.js · JavaScript · CLI · TUI · pnpm · github.com/PedroPini/hangar

Influencer Ratio August 2026 - Present

Recording vertical content meant eyeballing window sizes and cropping in post, so I built a macOS menu bar app that snaps the frontmost window of any app to an exact recording resolution — 9:16, 16:9 or square, in real output pixels.

Swift · AppKit · macOS · Accessibility API · Shell · github.com/PedroPini/influencer-ratio

Bill Notify January 2024 - March 2024

An end-to-end SaaS build so recurring payments stop sneaking up on you: bill reminders, Stripe subscriptions, PostgreSQL data modelling and Cloudflare deployment — including the production operations most side projects skip.

Next.js · Typescript · PostgreSQL · TailwindCSS · Stripe · Cloudflare · Node.js · billnotify.com

Scale Next Jan 2024 - Feb 2024

A Next.js boilerplate for entrepreneurs who want to ship fast without reinventing the wheel. Database and auth are wired up on generous free tiers, so an app costs nothing to run until it starts making money and you can spend your attention on what actually differentiates it.

Next.js · Typescript · PostgreSQL · TailwindCSS · Stripe · Shadcn UI · github.com/PedroPini/ScaleNext

OzGrocerie April 2023 - June 2023

I wanted supermarket specials in one place without checking four sites every week, so I built an automated catalogue aggregator — Python scrapers on scheduled Docker workers feeding PostgreSQL, with a Next.js front end that refreshed the specials weekly.

Python · Next.js · Typescript · PostgreSQL · Docker · TailwindCSS

Bash Alias Manager April 2023 - September 2023

Developed an open-source alias manager, because I couldn't find any for mac and I love using the terminal.

Bash · Javascript · Electron · HTML · CSS · github.com/PedroPini/Bash-Alias-Manager