

MATTIA PERETTI

Senior Backend Engineer — Security-Focused

Summary

Senior Backend Engineer with 10+ years of experience architecting scalable REST APIs and backend systems in Node.js and TypeScript, with a strong security focus spanning access control (RBAC), penetration testing, and ISO 27001 compliance. Proven track record in performance optimization, CI/CD automation, and containerized deployments. Currently deepening hands-on work with agentic AI tooling (built an MCP server with Mastra) as an active growth area.

Education & Certifications

Ethical Hacker Nanodegree

Certificate

2021

Master's degree in Computer Science and Engineering

Emphasis on cybersecurity. Thesis: Usage control monitors - the case of UCLinux.

University of Verona

2014

Bachelor's degree in Computer Science

Thesis: RBAC - Role based access control.

University of Verona

2010

Skills

Backend: Node.js (Express, Fastify), REST APIs, PostgreSQL, MongoDB, MySQL, Firebase

Security: RBAC & access control, Penetration testing, Application security hardening, ISO 27001 compliance

Cloud & DevOps: GCP, Firebase, Docker & Docker Compose, GitHub Actions (CI/CD)

Languages & Tooling: TypeScript, Java, Python, Go, Jest, OOP principles, Git

Agentic AI (growth area): Model Context Protocol (MCP) server development (Mastra) — hands-on exploration

Secondary Ecosystem Familiarity: React, Next.js, Tailwind, ShadCN, Vite, React Native, Capacitor

Experience

Senior Backend Engineer

Self-employed

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2019 - Present

- Architected and implemented REST APIs and scalable backend systems (Node.js, PostgreSQL, MongoDB), improving performance and maintainability.
- Established CI/CD pipelines (GCP, Firebase, GitHub Actions) enabling automated testing, security checks, and zero-downtime deployments.
- Conducted penetration testing and security hardening on internal applications, eliminating high-impact vulnerabilities.
- Contributed to ISO 27001 compliance efforts by implementing security controls and preparing technical documentation for audits.
- Modernized legacy backends (Node 20, TypeScript 5), resolving 100% of high/critical dependency vulnerabilities and reducing install time by 75%.
- Containerized applications using Docker and Docker Compose, reducing deployment time by up to 80% and standardizing environments.
- Implemented automated testing strategies (unit/integration), achieving up to 90% code coverage and improving system reliability.

Software Developer

Trueblue

Verona, Italy

2017 - 2019

- Implemented functional testing automation covering 90% of customer devices, reducing manual testing efforts.
- Researched and presented Docker solution for company's main software, speeding up deployment by 80%.

Full-stack Developer

Donatoni macchine

Domegliara, Italy

2015 - 2017

- Built MVC-based CNC machine-control software and optimized its image-processing pipeline by 60% through algorithmic and performance improvements.

Full-stack Developer

Aptadigital

Verona, Italy

2015

- Led adoption of modern tech stack (Laravel, Node.js, MongoDB), enhancing software stability for 100+ active users.
- Mentored team of five developers, improving project delivery time by 25% through structured learning sessions.

Full-stack Developer

Hit

Aff, Italy

2012 - 2015

- Engineered a graphical-signature platform with strong encryption, cutting processing times by 60% versus traditional methods while ensuring data privacy and regulatory compliance.
- Designed the cryptographic signing and verification workflow to safeguard signature integrity and support auditability requirements.

Side Projects

Agentic writer Mastra-powered content pipeline: six AI agents draft, research, and package articles for publishing, with human review before anything goes live.

UptimeSphere Website monitoring tool (Next.js, Tailwind) with secure auth and XSS/CSRF prevention.

SnapHab Habit tracker app (#2 Product of the Week on Product Hunt).

Pull espresso Real-time espresso ratio analysis tool (Next.js, NextUI).

Easy to do TODO management app (React, Go, SQLite).