PATRICK MUNNELLY

Full-Stack Engineer • React + TypeScript + Node.js

Marbella, Spain • +34 608 104 221 • patrick.m.munnelly@gmail.com • github.com/Patrick-Munnelly

PROFILE

Full-stack engineer with over 8 years shipping production React applications backed by Node.js and Python services across fintech, ethical AI and SaaS environments. Strong React and strict TypeScript focus, with deep, hands-on experience across the full delivery pipeline, including Tailwind CSS, Storybook, design systems, Jest, Cypress, Playwright, GitHub and GitLab CI, Docker, and AWS. Comfortable owning features end-to-end across frontend and backend, including building AI-powered features using LLM APIs (Anthropic, Gemini). I take a pragmatic, product-minded approach: I work closely with product managers and designers, and partner with architects to help design and improve features rather than rewriting things for the sake of it. I am a daily user of AI-assisted engineering tools (Claude, Cursor) across feature planning, implementation, testing and debugging, and treat AI as core engineering infrastructure rather than a novelty.

KEY SKILLS

Frontend: React, strict TypeScript, Next.js, Tailwind CSS, Storybook, Redux / Redux Toolkit, Material UI

Backend: Node.js, Express, Python (FastAPI), Java / Spring, RESTful APIs, OAuth2, JWT

Testing: Jest, Cypress, Playwright, React Testing Library, SonarQube

CI/CD & DevOps: GitHub Actions, GitLab CI, Bitbucket Pipelines, Docker, ESLint, TSLint

Cloud & Data: AWS (Lambda, DynamoDB, S3, CloudFront, RDS), GCP, PostgreSQL

AI Engineering: Claude / Cursor in daily workflow, LLM API integration (Anthropic, Gemini), AI chatbot prototyping

Practices: TDD, microservices, design systems, Agile, full SDLC ownership

EXPERIENCE

Senior Frontend Engineer — RavenPack *2024 – April 2026*

Worked across RavenPack's core analytics product and Bigdata.com, the company's new AI research platform launched in 2024. Operated as a senior IC inside a product squad, owning frontend-heavy features end-to-end while contributing across the stack and lifting team standards around testing, tooling, and developer experience.

- **Payment system:** Built a new payment and subscription flow into the product using React, TypeScript and Material UI, integrating with backend billing services and handling edge cases around upgrades, downgrades and failed transactions for enterprise customers.
- **Feature flags (LaunchDarkly):** Introduced LaunchDarkly into the application as the standard feature flagging system, designed the conventions and helper utilities around it, and onboarded multiple developers onto the workflow. This unblocked safe gradual rollouts, A/B experiments, and dark launches across teams, and meaningfully reduced release risk on a platform where downtime is highly visible to paying clients.
- **React and strict TypeScript:** Delivered new user onboarding flows and other product surfaces using React, TypeScript and Material UI, building reusable component patterns and shared design system primitives that reduced duplicated UI code across teams.
- **Test culture:** Drove testing strategy across the team using Playwright (90 percent plus UI coverage), Jest, and React Testing Library, and prevented regressions early via SonarQube static analysis. The result was fewer customer-facing bugs reaching production and noticeably faster, more confident releases.
- **CI/CD ownership:** Strengthened GitLab CI pipelines by introducing automated quality gates (ESLint, type-checking, unit tests) on every merge request, significantly reducing post-merge defects and the time engineers spent firefighting rather than shipping.

- **Full-stack contributions:** Wrote Python AWS Lambda functions and DynamoDB-backed services to unblock frontend features, and owned BFF endpoints in Node.js and TypeScript, shipping across the stack rather than waiting on backend handoffs.
- **AI-assisted engineering:** Use Claude and Cursor daily across feature planning, implementation, test generation and debugging, demonstrably increasing throughput and code quality.

Software Engineer — Trilateral Research*2021 – 2024*

Contributed across frontend and backend on multiple ethical AI products in Trilateral's STRIAD platform family, including CESIUM (built with Lincolnshire Police to help analysts identify patterns of child exploitation), STRIAD:AIR (an award-winning public-health AI tool turning air-pollution and health data into hyperlocal climate-action insights), and several scientific application proof-of-concepts. The work demanded strong UX sensibilities for non-technical end users, careful handling of sensitive data, and close collaboration with domain experts, designers and ML engineers throughout the SDLC.

- **Multi-product delivery:** Worked across CESIUM, STRIAD, STRIAD:AIR and additional scientific POCs, moving between product codebases and adapting quickly to different stakeholder groups, data domains and deadlines.
- **React frontend:** Built responsive, accessible features in React, TypeScript, Next.js, Tailwind CSS and Redux, ensuring consistent cross-device user experiences for analysts working under operational time pressure.
- **Full-stack delivery:** Developed scalable backend services in Python and FastAPI on PostgreSQL, deployed to AWS Lambda via Bitbucket CI/CD pipelines.
- **End-to-end testing:** Introduced Cypress E2E testing to the company, set up the framework, conventions and Bitbucket Pipelines integration (Dockerised runners, automated reporting), and onboarded multiple developers onto the workflow. This caught regressions before they reached deployed environments and became the team's default approach to testing user-facing flows.
- **Recognition:** Projects within the STRIAD platform family went on to win multiple DataIQ Awards, including the 2023 'Data for Society' Award for CESIUM.

Software Engineer — Boyne Park Fitout*2018 – 2021*

Joined as the technical hire to design and build custom software for a growing construction firm, replacing manual spreadsheets with purpose-built tools for tracking operational efficiency, employee qualifications, site progress and materials. Operated as a one-person product team, gathering requirements directly from operations staff, scoping, building and shipping across both web and mobile.

- **React and Flutter:** Led development of a ReactJS web application and a Flutter mobile app sharing a unified backend, replacing paper-based and spreadsheet-driven processes with tooling that gave management real-time visibility into site progress, materials and labour.
- **Node.js backend:** Built the backend in Node.js and Express, with MongoDB for application data and AWS S3 for image storage (site photos, qualification documents and material records uploaded from mobile in the field).
- **Project ownership:** Owned features end-to-end across the full SDLC: discovery, architecture, build, release, and maintenance, for a small team with no senior engineering layer above. The tooling I built remained in active production use across the business after I left.

Associate System Developer — Pramerica*2016 – 2018*

First professional engineering role, working in a large enterprise environment building and maintaining responsive insurance applications. Gained strong fundamentals in full-stack web development, relational database design, and disciplined release processes within a heavily regulated industry.

- **Frontend:** Built responsive insurance web apps in HTML, JavaScript, CSS, React and Bootstrap.
- **Backend:** Backend services in Java and Spring Boot, integrating OracleDB via JDBC/Hibernate; tuned queries and transaction management for performance and scalability.

EDUCATION

B.Eng. Software Engineering — Technological University of the Shannon*2014 – 2015*

B.Eng. Computer Engineering — Technological University of the Shannon*2010 – 2014*