

CLÉMENT VALLOIS

Back-End Developer · Node.js · TypeScript · NestJS · PostgreSQL

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French (native) · English (C1, TOEIC)

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PROFILE

Back-end Node.js / TypeScript developer focused on reliability and software quality (DDD, Clean Architecture, CI/CD). Before moving into development, I spent 5 years managing projects on a banking information system (Société Générale Group), building a strong awareness of regulatory compliance, production stability and cross-team coordination. I now want to put this dual background to work on production Node.js back-end APIs, where robustness, maintainability and code quality are central concerns.

PERSONAL PROJECT

ArtFolio: NestJS backend of a social network for artists

github.com/ClementVallois/ArtFolio

Design and development of the entire backend (REST API consumed by 2 front-ends).

- 4-layer DDD architecture (domain / application / infrastructure / presentation): entities, typed value objects, use cases, repository interfaces; framework-independent domain, replaceable infrastructure.
- Authentication & authorization: Auth0 integration, RS256 JWT validation with JWKS caching, NestJS guards and a custom `@Permissions()` decorator for role-based access control (RBAC).
- Regulatory compliance (GDPR): PL/pgSQL stored procedures for exporting and deleting personal data, audit triggers recording user data changes as JSONB.
- Robust APIs: strict input validation (class-validator, global ValidationPipe), centralized exception handling, auto-generated Swagger / OpenAPI documentation.
- Security: Helmet, CSRF protection, HttpOnly cookies, rate limiting (throttler), file upload restrictions.
- Transactional integrity: multi-step operations via `DataSource.transaction()` with automatic rollback and file cleanup on failure.
- Observability: custom logger (severity levels, daily rotation), HTTP request tracing interceptor.
- PostgreSQL persistence via TypeORM (versioned migrations, soft deletes, UUIDs).
- Jest tests (unit, integration, e2e), GitHub Actions CI (lint → test → build), Docker Compose containerization, AWS EC2 + Nginx deployment.

Stack: Node.js, NestJS, TypeScript, Fastify, PostgreSQL, TypeORM, Auth0/JWT, Docker, AWS EC2, Nginx

PROFESSIONAL EXPERIENCE

Fullstack Developer, HITPART (IT services company)

2023 – Present

Clients: SFR, AFD (French Development Agency), De Filippis

Maintenance & evolution of existing services

- Designed and developed functional enhancements in collaboration with business teams: requirements gathering, effort estimation, implementation and delivery.
- Maintained and evolved application code used in production: anomaly analysis (diagnosis, debugging, traceability) and bug fixing.
- Handled major platform version upgrades: backward-compatibility management and adaptation of internal APIs — a stability and non-regression concern for consuming applications.

Quality, stability & industrialization

- Refactored existing code for maintainability: readability, dead-code removal, complexity reduction.
- Tracked quality indicators with SonarQube (coverage, code smells, vulnerabilities).
- Wrote and ran unit and integration tests.
- Built CI/CD pipelines (GitLab CI): build, tests, SonarQube analysis, deployment.
- Containerized environments with Docker (Dockerfile, Docker Compose).

- Automated functional test scenarios (Robot Framework, Python).
- Built technical proofs of concept for pre-sales.

Environment: Java, JavaScript, REST APIs, GitLab CI, SonarQube, Docker, Python, Robot Framework

IT Project Manager / Business Analyst, AYVENS (formerly ALD Automotive, Société Générale Group) 2018 – 2022

Maintenance & Evolutions team (10 developers) within the IT department: IBMi (AS400) platform, the core business system of a car-leasing and financing activity.

Cross-functional coordination & compliance

- Scoped and analyzed business requirements in regulated domains (leasing contracts, invoicing, reporting) with business departments.
- Wrote requirements documents and functional specifications.
- Coordinated business departments, the development team and acceptance testing — cross-functional point of contact for components shared across several domains.

Project management & quality

- Managed and prioritized a portfolio of ~15-20 concurrent projects (planning, milestones).
- Rolled out Scrum (backlog, user stories, acceptance criteria, ceremonies).
- Designed the functional acceptance-testing strategy and led acceptance phases.
- Led the rollout of Azure DevOps across the entire IT department (processes, training, change management).

Environment: IBMi/AS400, RPG, SQL, Azure DevOps, Scrum

EDUCATION

Application Designer & Developer, O'Clock School (Grande École du Numérique) 2024

French state-certified diploma, RNCP Level 6 (EQF 6). Capstone project: ArtFolio (full NestJS backend).

TypeScript, NestJS, Node.js, PostgreSQL, TypeORM, REST APIs, Fastify, Docker, AWS EC2

Full Stack JavaScript curriculum, The Odin Project 2022

HTML, CSS, JavaScript, Node.js, MongoDB, React

Master's Degree in Information Systems Management, CESI 2017

Focus: systems & networks, project management

TECHNICAL SKILLS

Back-End: Node.js, NestJS, TypeScript, Fastify, Java, REST APIs

Databases: PostgreSQL, SQL, TypeORM (modeling, migrations, transactions)

Architecture: DDD, Clean Architecture, Hexagonal Architecture, SOLID, microservices

Security / Auth: Auth0, JWT, RBAC, Helmet, CSRF, rate limiting

DevOps & CI/CD: Docker, GitLab CI, GitHub Actions, Git

Cloud: AWS (EC2), Nginx

Documentation: Swagger / OpenAPI

Quality tools: SonarQube, Jest, Robot Framework

SOFT SKILLS

Cross-team communication · Teaching & knowledge sharing · Thoroughness · Team spirit · Active listening