

# JONATHAN GELIN

Software Engineer | AI Engineer | Nx Expert

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## PROFESSIONAL SUMMARY

Whether it's as a Software Engineer, Tech Lead, or Architect, if it involves software development, I'm in!

After 19 years evolving from Java to JavaScript/TypeScript, I now focus on the intersection of AI and developer experience. I build AI frameworks that support software development teams—from intelligent code analysis to architecture validation and automated workflows.

I help companies scale through Nx monorepos, micro frontends, and a touch of Extreme Programming philosophy—now enhanced with AI-powered tooling.

Every day for me is like waiting for the next episode of my favorite series—filled with learning, sharing, and growing together. I'm as passionate about coaching as I am about coding.

I am the father of two incredible boys, and I am endlessly grateful to my wife for supporting my passion every day.

## CORE COMPETENCIES

**AI Engineering:** Agentic AI, Claude Code Hooks, AI-assisted Development, Code Analysis, Architecture Validation, Automated Workflows

**Architecture:** Monorepo (Nx), Micro-Frontends, Single-spa, Module Federation, SystemJS, Distributed Caching, Distributed Task Execution

**Frontend:** TypeScript, Angular, React, RxJS, Tailwind CSS, SASS, Webpack, Storybook

**Backend:** Node.js, NestJS, GraphQL, Java, Spring Boot, Python, Go, .NET

**DevOps & Tools:** CI/CD, GitLab, GitHub Actions, Azure DevOps, Docker, Kubernetes, Jest, Cypress, Playwright

**Methodologies:** Agile, Scrum, Kanban, XP (Extreme Programming), TDD, BDD, Code Review, Pair Programming

## EDUCATION

### Bachelor in IT Science

Sep 2003 - Jun 2006

HEB (ESI), Brussels, Belgium

### SECONDARY SCHOOL CERTIFICATE (CESS)

Sep 2000 - Jun 2003

COLLEGE ST VINCENT, Soignies, Belgium

## LANGUAGES

**English:** Fluent | **French:** Native speaker

## PROFESSIONAL EXPERIENCE

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### Nx Consultant & Software Development Acceleration

Mar 2025 - Present

#### Julius Baer

Remote

Partnered with the Software Development Acceleration department to streamline and modernize the Software Development Lifecycle across a large distributed repositories ecosystem. My work focused on introducing a scalable architecture powered by Nx, improving consistency, performance, and developer experience across dozens of heterogeneous codebases, while also bringing AI-assisted tooling into key engineering workflows.

- Designed and implemented a new polyglot build system built on Nx with a full plugin architecture
- Integrated Nx across distributed repositories using Java, Go, Jib, Helm, Python, and npm
- Built a polyglot release engine to unify and standardize release processes across stacks
- Automated GitLab CI pipeline generation, removing manual overhead and improving long-term maintainability
- Enhanced CI/CD performance through Distributed Task Execution and optimized caching across multiple GitLab runners
- Implemented end-to-end test coverage with Playwright, along with targeted test suites validating the build system to ensure reliability, reproducibility, and architectural integrity
- Introduced AI-powered tooling by implementing an AI Framework to assist with code analysis, architecture validation, and developer workflows, improving productivity and decision-making across teams
- Provided continuous coaching and support to engineering teams adopting Nx and modern development practices
- Planned and initiated the migration of hundreds of repositories into the internal cloud platform

**Technologies:** Monorepo (Nrwl/Nx), TypeScript, Maven, GitLab, OpenAPI Specification (OAS), Cypress, Playwright, ReactJS, npm, pnpm, mise, Continuous Integration (CI), Micro Frontends Architecture, Single SPA, SystemJS, Webpack Module Federation, Java, Go, Python, Helm, Jib, AI-Assisted Development, Claude Code

### Nx Consultant & Full Stack Development Architecture

Mar 2024 - Feb 2025

#### Caseware

Remote

Collaborated with the Dev Success Team to maintain and improve a large Central Monorepo (~900 projects) alongside multiple Distributed Monorepos. As an Nx expert, implemented an architecture designed to maximize the benefits of the Nx ecosystem.

- Upgraded Nx from v16 to v19.8
- Refactored custom utilities from legacy Project Configuration to Nx's Project Graph
- Unified and simplified the Monorepo architecture by leveraging Nx Plugins
- Unified workflows across multiple tech stacks (JavaScript/TypeScript, Java, Python, Go, .NET)
- Streamlined CI/CD GitHub workflows
- Paired and coached development teams for better Monorepo integration
- Implemented a new CI-managed release process
- Contributed to task organization for the Dev Success Team

**Technologies:** TypeScript, Monorepo Architecture, Micro-Frontends Architecture, Nx, Angular, NestJs, GitHub, Webpack, Jest, ESLint, Cypress, DevOps, NodeJs, Yarn, Pnpm, OpenAPI, Webstorm, GitHub Actions, GitHub Copilot, Java, Python, Go, .NET

## Architect Team Lead

Jun 2023 - Dec 2023

### Entain

Remote

Oversaw the migration of multiple repositories and projects into an Nx monorepo for Entain. Developed the migration strategy, conducted coaching and pairing sessions with developers, configured the CI/CD pipeline, and ensured effective use of tools to uphold best development practices.

- Architected the monorepo with a focus on Angular and .Net
- Developed a migration kit with monorepo conventions to streamline integration of external repositories
- Deployed various Nx plugins to create custom executors and generators
- Established a new process to build multiple themes and integrate them seamlessly into various applications
- Implemented a new CI-managed release process
- Executed a full CI/CD implementation on GitLab, incorporating Distributed Task Execution and Distributed Caching
- Enforced best development practices to ensure long-term quality and maintainability
- Led weekly meetings for project updates and progress tracking
- Organized and generated tasks for the architecture team

**Technologies:** Nx, .NET, CI/CD, GitLab, Distributed Task Execution, Distributed Caching, Monorepo Strategy, Development Coaching, Angular, TypeScript

## Software Architect & Tech Lead & Mentoring

Apr 2020 - Jun 2023

### Selligent Marketing Cloud

Hasselt, Flanders Region, Belgium · Remote

Established the new frontend architecture across multiple teams, including coaching/pairing with developers, configuring CI/CD pipelines, and ensuring adherence to best development practices. Migrated a large AngularJS application to a micro-frontend architecture.

- Designed the monorepo architecture to group applications, libraries, shared components, and e2e tests
- Implemented a micro-frontend architecture using single-spa and Angular
- Configured e2e testing processes and tooling using Cypress
- Delivered a full CI/CD implementation with Azure DevOps, supporting incremental development
- Established best development practices to ensure long-term quality and maintainability
- Coached developers on JavaScript functional programming, CI/CD, XP (pair programming, code reviews, training), BDD, and TDD
- Coached clients on adopting an agile mindset and continuous development practices

**Technologies:** NodeJS, TypeScript, RxJS, Angular, Tailwind, Storybook, Webpack, Monorepo, Micro-Frontend, Single-spa, Module Federation, SystemJS, ESLint, SonarQube, OpenAPI, Nrwl Nx, SASS, Angular Material, Jest, Cypress, Yarn, WebStorm, Azure DevOps, Docker, Jira, Git, Azure App Insights, Azure Storage

## Software Architect & Tech Lead & Agile Coach

Nov 2018 - Apr 2020

### Thalys

Brussels Region, Belgium · Hybrid

Configured and led a full-stack software development team, following the Spotify squad model. Supported the team by implementing core architectural components and coaching them on eXtreme Programming (XP) principles. Acted as a bridge between customers and users, guiding them through Agile principles and fostering a continuous development workflow.

- Architected a monorepo grouping backend services, frontends, and shared libraries
- Designed a frontend architecture with reusable components across multiple applications
- Collaborated with the team to define key UI/UX ergonomics
- Developed a backend architecture based on microservices
- Implemented a caching system using Redis to enhance overall performance
- Delivered a full CI/CD pipeline using Docker in a Kubernetes environment
- Established best development practices to ensure long-term quality and maintainability
- Coached developers on JavaScript functional programming, CI/CD, and XP practices
- Configured authentication and authorization using Azure AD and centralized roles
- Designed the business domain model in collaboration with customers
- Configured the Kanban board with the team to optimize task management
- Set up metrics and reporting to improve team velocity and enhance user satisfaction
- Coached customers on Agile methodologies and continuous development
- Mentored other internal development teams on various architectural topics

**Technologies:** TypeScript, Node.js, Tailwind CSS, Angular, Azure DevOps, Monorepo (Nrwl/Nx), RxJS, GraphQL, NestJS, Postman API, Yarn, Cypress, Jest, Microsoft Azure, Agile Methodologies, Kanban, GitLab, Docker, Kubernetes, Sass, Redis

## Software Architect & Mentoring

Oct 2017 - Dec 2018

### Fednot

Brussels Region, Belgium · On-site

Served as the Angular expert, responsible for the frontend architecture used by new Fednot applications. Provided pair coaching and maintained code quality by creating common best practices and components. Also acted as a scrum master, sharing experience in Agile, backend development, and DevOps.

- Configured a 'Monorepo' to share Angular/Javascript libraries across applications
- Specified good practices related to frontend development
- Coached developers in Angular
- Coached developers in XP: programming, reviewing, and testing
- Worked as a scrum master, defining team workflow with the team
- Participated in backend architecture specifications based on microservices

**Technologies:** Angular 2+, Angular CLI, Redux, RxJS, TypeScript, SASS, Angular Material, Jest, Cypress, OpenAPI (Swagger), NodeJS, Yarn, Webstorm, Postman, Bamboo, Jira, Confluence, Git

## Software, Front-end Architect

Jan 2017 - Sep 2017

### Sodexo

Remote

Responsible for the new front-end architecture for all Sodexo applications. Provided proof of concepts, samples, documentation, coaching, patterns, and ways of working.

- Configured a 'Monorepo' to share Angular/Javascript libraries across applications
- Developed libraries for dynamic forms, translation/localization, authentication, remote services, notifications, and error management
- Defined and configured a CI process using GoCD and Docker (libraries: build, lint, test, e2e, release, publish on nexus; applications: build, lint, test, e2e, release, deploy on AWS)
- Specified and automated unit tests using Karma and Jest
- Worked as a scrum master, specifying Jira workflows
- Participated in microservices backend architecture specifications

**Technologies:** Angular 2/4+, Angular CLI, Redux, RxJS, TypeScript, SASS, Bootstrap 4, Karma, Mocha, Selenium, Jest, Protractor, OpenAPI (Swagger), NodeJS, Yarn, ExpressJS, IntelliJ, Postman, GoCD, Jira, Confluence, Git, Docker, Nginx, AWS

## **Senior Java/AngularJS Developer**

*Jan 2016 - Dec 2016*

### **SWIFT**

*La Hulpe, Walloon Region, Belgium · On-site*

Responsible for architecture and development (frontend and backend) of a web application used to screen customers.

- Coached the team in Agile practices
- Reviewed backend architecture, simplifying Maven configurations and splitting the application into modules
- Implemented OAuth 2 alongside SAML using Spring Security
- Improved usage of Spring frameworks
- Integrated a build framework using Grunt and Webpack with ES6
- Reviewed folder structure for a business view
- Refactored to use Angular components instead of large monolithic pages
- Defined the full continuous integration process using Jenkins pipelines
- Defined and coached the team on GIT and JIRA workflows

**Technologies:** AngularJS, Grunt/Webpack, NodeJS, Java 8, Spring, Spring-Boot, Hibernate, Jersey, Maven, Jenkins, Oracle, IntelliJ, Git, Jira, Confluence, RedHat, SAML, OAuth 2

## **Senior Node.js Developer**

*Nov 2015 - Dec 2015*

### **RTBF**

*Schaerbeek, Brussels Region, Belgium · On-site*

Responsible for the analysis, development, and architecture of an application to register user behaviors for a future recommendation algorithm.

- Performed functional and technical analysis
- Defined the data model
- Defined user actions to track
- Implemented the front-end script
- Implemented the NodeJS module
- Performed performance tests using Apache Bench

**Technologies:** EcmaScript 6, NodeJS, KoaJS, Gulp, Babel, Atom, NodeLoad, Redis, Elasticsearch, Git

## **Senior AngularJS Developer**

*Apr 2015 - Oct 2015*

### **Edebex, Belgium**

Responsible for analysis, development, and architecture (frontend and backend) of a web application to help companies sell invoices at lower prices.

- Provided estimation support (functional analysis and workload estimation)
- Designed the application (defined microservices architecture, AngularJS team development conventions/rules, and OAuth2 security solution)
- Implemented functionalities (refactored existing code, enhanced architecture, tested functionalities using JUnit)
- Provided IT support (coached and supported trainees, reviewed code, supported application users)

**Technologies:** Java 8, Spring Boot, Javascript, HTML5, AngularJS, Bootstrap, CSS, Docker, IntelliJ, Git, Gulp, NodeJS, Hibernate, MySQL, Jenkins, Jira, JUnit, Mockito, Scrum, OAuth2

## **Java Senior Developer & Scrum Master**

*Nov 2013 - Mar 2015*

### **Thales, Belgium**

*Tubize*

Responsible for development and architecture of an easy-to-use application to set networks of different radio systems. Worked within a six-programmer team.

- Provided estimation support (functional analysis and workload estimation)
- Designed the application (defined solution to split application into plugins, continuous delivery process (Maven/Jenkins), team development rules, and license control solution)
- Implemented functionalities (refactored code, enhanced architecture, configured team environments, integrated automatic processes, tested functionalities using JUnit)
- Provided IT support (solved performance issues, reviewed code)

**Technologies:** Java/JEE, Swing, Hibernate 3, Spring 4, JGraphX, JIDE, Maven, Jenkins, Confluence, TinyPM, JUnit, H2 DB, XML, Eclipse, IntelliJ, Git, UML, YED, Excelsior, EasyMock, Scrum

**Java/JS Lead Developer***Aug 2013 - Oct 2013***ADNEOM***Brussels, Belgium*

Responsible for development and architecture of a new web application (PC & Mobile) with three main tools: Aperform (tracking external employee progress), Atranet (managing internal tools), and Avolution (supporting employee career progression). Worked within a three-programmer team.

- Provided business support (technical solution proposals and workload estimation)
- Designed the application (defined technical architecture, frontend/backend communication, and entity relationships)
- Implemented functionalities (implemented Aperform functionalities and the administration part)
- Provided IT support (managed release deployment, coached programmers, reviewed code, solved production issues)

**Technologies:** HTML 5, AngularJS, JQuery, Twitter Bootstrap, Node.js, LESS, CSS, Java/JEE, Maven, Jetty, Spring, Spring MVC, Hibernate, MySQL, IntelliJ, Git, GitHub, Jira, Putty

**Senior J2Ee Developer***Aug 2012 - Jul 2013***Roularta Media Group***Louvain-La-Neuve, Belgium*

Responsible for development and analysis of the 'International Information Gateway' (IIG) application, used to request data on international companies via web services.

- Provided estimation support (functional analysis and workload estimation)
- Designed the application (performed global refactoring, defined WSDL files, and defined the technical architecture)
- Implemented functionalities (created a cache implementation, generated Axis2 classes using 'wsdl2code', gathered business requirements, implemented XML mappings using XSLT, tested functionalities using JUnit and SoapUI)
- Provided IT support (solved production issues, reviewed code)

**Technologies:** Java/JEE, JSP, JSTL, XSLT, JUnit, Axis2, HTML, JS, CSS, Tomcat 7, MySQL, XML, Eclipse, Subversion, Jira, Putty, DocuWiki, WSDL

**Consultant Java/JEE***Apr 2011 - Jul 2012***Thalys International (ADNEOM)***Brussels, Belgium*

Lead developer (1-4 developers) on a fixed-price maintenance contract for two Thalys applications: Localys (real-time traffic monitoring) and Opalys (statistical reporting).

- Provided estimation support (functional retro analysis, workload estimation, workload scheduling)
- Designed the application (refactored legacy architecture, improved layering and loose coupling using Spring, improved MOM by migrating from JBossMQ to HornetQ, improved persistence by migrating from Oracle 8 to Oracle 11G)
- Implemented functionalities (gathered business requirements, implemented using POJO + Spring + Struts (Localys) and POJO + Spring + Swing + POI-HSSF (Opalys), performed unit and integration tests)
- Provided acceptance support (defined test plans and provisioned environments)
- Provided IT support (defined environments, implemented virtualization using VMware, automated environment configuration, solved production issues, defined migration plans)
- Committed to fixed-price constraints (managed time, validation, and follow-up activities through Jira Studio)

**Technologies:** Java/JEE, Spring, Struts, Hibernate, Swing, JSP, JSTL, JMS, JUnit, POI-HSSF, HTML, JS, CSS, JBoss, Oracle 11G XE, MySQL, XML, IntelliJ, Subversion, Jira, VMware, HornetQ, JBossMQ

**JEE Developer***May 2007 - Mar 2011***I.R.I.S. Product and Technologies (European Commission)***Brussels, Belgium*

Responsible for analysis, development, and maintenance of two applications: TMS (resource booking and management) and JCSWeb (reporting application based on TMS data). Worked within a four-developer team.

- Participated in functional analysis and wrote analysis documentation using European Commission templates (RUP implementation)
- Implemented functionalities (improved usability of HTML forms using Ajax, designed and implemented PDF reports using iText, designed and implemented an applet for automatic PDF printing, created scheduled Oracle procedures)
- Provided acceptance support (wrote test scenarios, provisioned environments, created and executed performance tests using Apache JMeter)
- Wrote documentation for knowledge transfer to new developers

**Technologies:** Java/JEE, Struts, JSP, JSTL, HTML, JS, CSS, WebLogic, Oracle 10G, XML, Eclipse, CVS, Toad, Word, iText, Apache JMeter, RUP, PL/SQL, Ajax

**Cold Fusion Developer****European Commission***Sep 2006 - May 2007**Brussels, Belgium*

Maintained the iPerseus application used by European delegations for reporting economic data. Also implemented new HTML/ColdFusion forms and various applications for DG ELARG.

- Integrated the European security framework (ECAS authentication service and user role-based authorization)
- Implemented new HTML/ColdFusion forms
- Performed maintenance (migration, updates)
- Implemented various applications using ColdFusion for DG ELARG
- Provided knowledge transfer to new developers

**Technologies:** ColdFusion 6/8, HTML, JS, CSS, Dreamweaver CS4, SVN, Oracle 10G, SQL/PLSQL, Jira, Toad, ECAS