

Antonio De Luca - Software Designer and Developer

[linkedin.com/in/antonio-deluca](https://www.linkedin.com/in/antonio-deluca) – github.com/antoniodeluca – contact@antoniodeluca.info

| Summary

I'm a full stack software designer and developer, specialized in but not limited to web applications, and an advocate for driving implementation and ensuring quality through automated testing methodologies.

Focused on event-driven/service-oriented architectures and serverless/IaC approaches, strongly experienced in object oriented programming, very knowledgeable in functional/reactive paradigms and long-time enthusiast of machine learning.

I've studied electronics, written my first code on a VIC 20 and, during 1999, after a lot of experimentation with neural networks, finally recognized software as my passion and understood that it would have been my future.

After that, during 25+ years, I've worked in various contexts and roles contributing to the design and development of many systems as well as to the support and mentorship of many engineers through pair programming and individual contribution.

| Skills

- *Solution design methodologies* => DDD, Event Storming, Evolutionary Architectures, RFC
- *Solution development techniques* => AIAD, ATDD (and BDD/TDD), Continuous Delivery, Feature Flags, Pair Programming
- *Solution documentation approaches* => C4, ERD, UML
- *Main programming language* => TypeScript (or JavaScript directly)
- *Main tech stack* => Node.js (or Express or NestJS) for backend, HTML/CSS/JS (or React/Next.js or React Native) for frontend
- *Main cloud provider* => AWS (mostly around its serverless services)

A team player and a clear, organized and thoughtful communicator.
Business savvy and pragmatic.

Worked with various DevOps tools, CI/CD systems, o11y solutions, database engines, runtime environments, cloud services, coding assistants as well as with many libraries and additional languages.

Used to apply rapid prototyping, iterative refactoring, efficient modularization, design patterns, appropriate DSA, scalability rules, security practices and accessibility guidelines.

| Experience

Independent Software Researcher

AssemblyScript, C++, [JavaScript](#), Python, Rust, [TypeScript](#) | 09-2024 / present

Currently doing a lot of experimentation with focus on discovering, testing and documenting novel approaches, alternatives and techniques within the Machine Learning and Software Engineering topics.

Machine Learning:

- Novel approach for sequential data learning.
- Alternative architecture for AGI.

Software Engineering:

- Novel approach for nanoservices oriented processes implementation and execution.
- AI assisted design and development techniques.

Principal Software Developer

Endeavor Streaming | <https://www.endeavorstreaming.com> | [JavaScript](#), [TypeScript](#) | Remote | 05-2023 / 06-2024

- Supported, fully hands-on, the evolution of the automated testing practices within the Frontend area to pave the way for quality assurance improvements around product, development processes and code.
- Collaborated with various teams, fully hands-on, to the design, implementation and delivery of a variety of software solutions.
- Assisted and mentored engineers in the application of best practices and excellence standards in software design and development.
- Advocated around potential architectures, methodologies and technologies for the strengthening of development processes within the Frontend area but not limited to that.

Senior Software Developer

Cazoo | <https://www.cazoo.co.uk> | [JavaScript](#), [TypeScript](#) | Remote | 10-2019 / 12-2022

- Contributed within multiple teams to the design, implementation as well as management of core systems, hands-on for Backend and Frontend, following but not being limited to principles of Domain Driven Design, Hexagonal Architecture, Infrastructure as Code, Microfrontends, Microservices, Object Oriented Programming, Observability, Outside-In TDD and Serverless.
- Supported and mentored Junior as well as Senior Developers through pair and mob programming.
- Advocated for minimalism, software craftsmanship as well as prototyping and evolutionary approaches.
- Helped the hiring process as one of the main interviewers around TDD and Code Design focused exercises.
- Delivered internal talks on Functional Programming, Functional Reactive Programming and Web Assembly.

Principal Software Developer [04-2017 / 02-2019] after having been Senior Software Developer

DAZN | <https://www.dazn.com> | [JavaScript](#) | On-site | 08-2016 / 02-2019

- Designed and implemented, within a team and under the Architect supervision, an high performance Microfrontends bootstrapper able to change SPAs without any page reload, to do custom caching of the downloaded SPAs, to allow reactive intercommunication between the SPAs, to act as a lightweight hidden background controller and to be the single entry point for all the target devices supported by the company product through HTML/CSS/JS clients.
- Designed and implemented, within a team and under the Architect supervision, a custom CI/CD system, based on the "Infrastructure as Code" paradigm, able to run pipelines of intercommunicating tasks through isolated containers. After only ~3 months the system started to allow a growing number of teams to have static analysis, complex custom building processes, tests suites and more automatically executed for them as well as to be able to autonomously manage their pipelines.
- Designed and implemented, within a team and under the Architect supervision, many high scalability pipelines through the use of a mix of the custom CI/CD system, AWS Lambdas and local devices via VPN.
- Achieved, within a team and under the Architect supervision, a successful ~2 months fast prototype implementation of the company Microfrontends architecture proposal.
- Contributed to the implementation of the video player component.
- Contributed, with design validation and code reviewing, to the implementation of the company Microfrontends architecture as well as of many of the related SPAs.
- Contributed, together other Principal Developers and Architects, to the standards and best practices definitions, the supporting and mentoring of Junior as well as Senior Developers, the leading of various teams and the interviewing processes.

Senior Software Developer

Access | <https://www.theaccessgroup.com> | [JavaScript](#), PHP | On-site | 08-2015 / 08-2016

- I have been in charge for the design and development of the frontend side application (AngularJS) of one of their mainstream solutions. The same project involved me as an additional senior developer for code reviews about the server side application (LAMP based API). Previously I have also worked on the design and development of the frontend side application (AngularJS) of another one of their mainstream solutions. I have also been involved in the development of a centralized logging system (Node.js based) and in the containerization of the development environments.

Lead Software Developer [07-2014 / 07-2015] after having been Senior Software Developer

IIT - Istituto Italiano di Tecnologia | <https://www.iit.it> | C#, Java, [JavaScript](#), PHP | On-site | 07-2010 / 07-2015

- I have been in charge of the design and development of two projects, an internal proprietary (LAMP) scientific data analysis/reporting tool and the Open Source (MEAN) P2P "Scientilla" project. Often I also supported developers from various departments to decide the right architecture and approach for their needs as well as to select the right web application frameworks, libraries, database engines, server engines and other. I have also been involved in the management and development of various institutional web sites.

Senior Software Developer

MIBATECH s.r.l. | ActionScript, C#, [JavaScript](#), PHP | On-site | 09-2009 / 06-2010

- I have been in charge for the design and development of web applications for their network. I have also been responsible for the internal proprietary PHP framework and for C# based desktop applications.

Freelance Software Developer

SWP - Software With Passion | C++, C#, [JavaScript](#), PHP | On-site | 01-2006 / 08-2009

- I have developed various websites based on Joomla!, with custom extensions implementation, as well as other minor applications based on C# and C++.

Co-Founder & Software Developer

NETRIX s.r.l. | C#, Java, [JavaScript](#), PHP, Visual Basic | On-site | 09-2001 / 05-2007

- I have been in charge for the design and development of a public informative system distributed around cities over touch screen kiosks as well as for minor development activities on side works for little customers.

Other

[JavaScript](#), Perl, PHP | 09-1996 / 08-2001

- Minor experiences in terms of software development, while I was studying for my Computer Science Bachelor Degree course (that I have in the end abandoned), as well as other jobs outside the IT field.

| Languages

English: Professional working proficiency - Italian: Native or bilingual proficiency

| Education

Industrial Electronics Technical Diploma (Sep. 1991 - Jul. 1996) - Grade: 60/60 (equivalent to Level A)
Istituto Tecnico Industriale "Vincenzo Cerulli"