

# FRANCESCO LONGO

# Senior Software Engineer | Back-end Specialist | AWS



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Torino, IT

I have **6 years** of **backend** development experience, primarily using **Node.js** and **TypeScript**, specializing in building high-performance web applications and **RESTful APIs**. My expertise in **AWS** services (Lambda, DynamoDB, S3, API Gateway) and serverless architecture allows me to deliver scalable and secure solutions. I excel in API integration, optimizing **databases**, and developing **microservices**. Proficient in CI/CD with **GitLab CI/CD** and **Docker**, I follow best practices in **TDD** and **Agile** methodologies. Passionate about technology and innovation, I bring **reliability**, **resourcefulness**, and **adaptability** to every project.

#### SKILL

- JavaScript, TypeScript, Python, Java
- · Node.js, NestJS, Spring
- SQL (PostgreSQL, MySQL), NoSQL (MongoDB, DynamoDB, Firestore)
- AWS Stack, Serverless architecture
- Terraform, Docker, GitLab CI/CD
- REST, GraphQL
- Elastic Search, Natural Language
  Processing (NLP)
- TDD, Agile, Microservices
- Git, GitHub, GitLab
- AngularJS
- Leadership, Teamwork, Problemsolving, Adaptability, Innovation, Communication

## PROFESSIONAL EXPERIENCE

#### **Software Engineer**

YouGov (London, UK) - Remote

Sep 2023 - Aug 2024

Dec 2021 - Aug 2023

• I used technologies like Node.js, AWS, Terraform, Elastic Search, and GitLab CI/CD to design, develop, and maintain high-performance applications with scalable infrastructure. My work included developing backend APIs with Lambda functions, implementing NLP tools for user comment moderation, managing AWS infrastructure with Terraform, delivering search capabilities with Elastic Search, and optimizing workflows with GitLab CI/CD for reliable updates.

#### Software Back-End Developer

Heres (Bologna, IT) - Remote

• I developed Alexa Skills with voice interactions and visual interfaces for Amazon devices using Node.js and AWS Lambda. I also designed chatbots integrated with platforms like Zendesk, Telegram, and WhatsApp to enhance customer interactions. Additionally, I managed third-party API integrations, ensuring smooth system communication. I used SQL/NoSQL databases (MySQL, PostgreSQL, Firebase), Docker, GraphQL, and NestJS to build scalable solutions for conversational platforms.

# Software Back-End Developer

Snowit (Milano, IT) - Remote

• Developed REST and GraphQL APIs for rental web services, leveraging serverless architecture and cloud functions to ensure scalability and flexibility. Utilized Firestore as a NoSQL database to efficiently manage data, optimizing performance and responsiveness for a seamless user experience.

#### Software Engineer

Kaleyra (Milano, IT) - On Site / Remote

Dec 2019 - Jun 2021

Jul 2021 - Sep 2021

• I have designed and developed microservices for managing mass messaging services, including email marketing (Node.js, RabbitMQ, Redis, MongoDB, Haraka), WhatsApp and SMS campaigns (Java, Spring Boot, ElasticSearch, RabbitMQ, PostgreSQL, Redis, Docker), and Apple Push Notifications (Node.js). I also created an internal web console using Node.js and AngularJS.

#### Research Fellow

Oct 2018 - Nov 2019

Oct 2018 - Feb 2019

Links Foundation (Torino, IT) - On Site

• I contributed to European H2020 and FoF projects as a developer and WP leader, including leading the GOEASY project, where I developed an Authentication framework with Keycloak using OAUTH 2.0 and OIDC. I also delivered courses on Blockchain, IOTA, and IoT, and worked with technologies like MQTT, Keycloak, MySQL, microservices, Docker, REST APIs, and tools such as JIRA and GIT.

# Software Engineer (External Consultant)

Sowre (Milan, IT) - Remote

• As an external consultant, I developed a Node.js application that reads environmental data from Ruuvitag sensors via Bluetooth LE, generates daily reports, and sends them to a remote server using FTP. The project utilized IoT technologies, Raspberry Pi, JavaScript, Node.js, NPM, Bluetooth LE, FTP, and Jest for testing.

I agree that my personal details shall be treated according to EU General Data Protection Regulation 2016/679 of April 27th 2016.

# Master's Degree in Computer Engineering (Software)

Politecnico di Torino (Torino, IT)

2015 - 2018

• I focused on blockchain and full-stack development during my academic journey. For my Master's thesis, I developed a Telegram Bot for IOTA wallets and analyzed Distributed Ledger Technologies. I participated in the EU Blockathon 2018, creating anti-counterfeit solutions with IOTA, and built a Django-based lab booking app as a LADISPE scholarship holder. Other projects include a public transportation app (graded 30 cum Laude) and an expense-sharing Android app (graded 28).

#### Bachelor's Degree in Computer Engineering

Politecnico di Torino (Torino, IT)

2011 - 2015

• I built a strong foundation in programming, algorithms, software design, database management, and web/mobile development. The program also covered operating systems, networks, and project management, complemented by hands-on projects and a thesis that prepared me for a career in software development.

#### **LAUNGUAGES**

- Italian native
- English (Fluent B2/C1)

## SIDE PROJECTS

- Personal website (www.francescolongo.me): simple static website built with HTML and CSS for the frontend, with the backend hosted on AWS S3.
- My wedding website (www.leididiaprile.it): My girlfriend and I developed our wedding website together. I handled the backend, building APIs for invitation confirmation. The site features event details and more. The backend is built using the AWS stack, including Route 53, CloudFormation, Lambda, DynamoDB, S3, and CloudWatch for monitoring.
- Football Rules Quiz: Developed microservices for a Telegram bot that enables users to review football rules, handling the project's analysis, design, and implementation. [nodeJS, Typescript, nestJS, PostgreSQL]. Currently I'm moving this project to the cloud using AWS Stack.
- Amazon Referral Project: Telegram bot to manage user requests to retrieve Amazon product information and automatically post it on a Telegram channel with an Amazon referral tag. [nodeJS, Rabbit, PostgreSQL, Amazon PAAPI, Jest].

#### CERTIFICATIONS

- AWS Cloud Practitioner CLF-C02 (AWS)
- AWS Certified Solutions Architect Associate (Udemy)
- Unit Testing for Typescript & NodeJs Developers with Jest (Udemy)
- The Git & Github Bootcamp (Udemy)
- Typescript: The complete Developer's Guide (Udemy)
- The Complete Developers Guide to MongoDB (Udemy)
- Practical Hands-on Guide for Alexa Skill Development (Udemy)
- Learn DevOps: CI/CD with Jenkins using Pipelines and Docker (Udemy)