

FRANCESCO LONGO

Cloud & Backend Engineer | AWS Certified Solutions Architect

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Turin, IT

Cloud-focused Senior Backend & Cloud Engineer with 6+ years of experience designing and building scalable, event-driven architectures on AWS using Node.js and TypeScript. Recently earned the AWS Solutions Architect Associate certification, strengthening expertise in serverless architectures, Infrastructure as Code (Terraform, AWS CDK) and end-to-end CI/CD pipelines across GitHub Actions and AWS services. Skilled at translating business requirements into resilient, cost-efficient cloud solutions and contributing within distributed, high-velocity teams. Passionate about clear, pragmatic architecture and actively pursuing roles focused on cloud engineering, AWS design and scalable distributed systems. Continuously expanding hands-on expertise with real-world AWS workloads, from serverless platforms to Terraform-driven environments.

PROFESSIONAL SUMMARY

- Cloud & Backend Engineering: Scalable, event-driven systems on AWS with Node.js, TypeScript and NestJS. Strong
 experience with RESTful APIs, PostgreSQL (Kysely) and serverless architectures, applying SAA-validated AWS best practices.
- IaC & CI/CD: Terraform, AWS CDK and Serverless Framework. Automated deployments and end-to-end CI/CD across GitHub Actions and AWS services, enabling zero-downtime environments.
- Data & Architecture: PostgreSQL, DynamoDB, MongoDB, Elasticsearch. Focus on clean code, TDD and resilient, decoupled cloud-native architectures.
- Soft Skills: Ownership mindset, clear communication and architectural thinking. Reliable collaborator in high-velocity teams.

PROFESSIONAL EXPERIENCE

Cloud Developer | AWS & IaC (Terraform)

Tecnonews (San Vito dei Normanni, IT) - Remote

May 2025 - Sep 2025

Designed and deployed AWS infrastructure using Terraform and Serverless Framework (Lambda, Fargate, SQS, RDS, IAM), delivering
scalable and decoupled cloud-native services. Built CI/CD pipelines with CodeBuild, CodePipeline and CodeDeploy to automate backend
and frontend releases with zero downtime. Developed REST APIs with NestJS and PostgreSQL (Kysely, PostGIS, Jest), integrating them into
a fully IaC-driven AWS stack with robust monitoring and operational reliability.

Cloud Developer | AWS & Serverless (Node.js)

YouGov (London, UK) - Remote

Sep 2023 - Aug 2024

 Built and maintained cloud-native applications on AWS using Node.js, Terraform and GitLab CI/CD. Delivered serverless microservices with Lambda, integrating SQS, S3 and Amazon Comprehend to automate NLP moderation flows and reduce manual review. Managed and evolved AWS infrastructure through Terraform, optimized search with Elasticsearch, and streamlined deployments to ensure scalable, resilient services and zero-downtime releases.

Backend Developer | AWS Lambda & Conversational Interfaces

Dec 2021 - Aug 2023

Heres (Bologna, IT) - Remote

Developed Alexa skills using Node.js and AWS Lambda, gaining hands-on experience with serverless patterns on AWS. Built chatbots
integrated with Zendesk, Telegram and WhatsApp to improve customer engagement and automated workflows. Implemented third-party
API integrations and worked with SQL/NoSQL databases (MySQL, PostgreSQL, Firebase), Docker, GraphQL and NestJS to deliver scalable
conversational platforms.

Software Back-End Developer

Jul 2021 - Sep 2021

Snowit (Milano, IT) - Remote

• Developed REST and GraphQL APIs for rental web services, using serverless architecture and cloud functions to deliver scalable and flexible solutions. Implemented Firestore as a NoSQL database to manage data efficiently, improving performance and responsiveness for a seamless user experience.

Software Engineer

Dec 2019 - Jun 2021

Kaleyra (Milano, IT) - On Site / Remote

Designed and developed microservices for large-scale messaging, including email marketing (Node.js, RabbitMQ, Redis, MongoDB, Haraka),
 WhatsApp and SMS campaigns (Java, Spring Boot, Elasticsearch, PostgreSQL, Redis, Docker), and Apple Push Notifications (Node.js). Built an internal web console with Node.js and AngularJS to streamline campaign management.

Research Fellow

Oct 2018 - Nov 2019

Links Foundation (Torino, IT) - On Site

• Led and contributed to European H2020 and FoF projects as developer and work-package lead, notably the GOEASY project, where I built an authentication framework with Keycloak using OAuth 2.0 and OIDC. Delivered training on Blockchain, IOTA, and IoT, and worked with MQTT, MySQL, microservices, Docker, REST APIs, plus tools such as JIRA and Git.

Software Engineer (External Consultant)

Sowre (Milan, IT) - Remote

• Developed a Node.js IoT application to collect environmental data from Ruuvitag sensors via Bluetooth LE, generate daily reports, and send them to a remote server using FTP. Leveraged Raspberry Pi, JavaScript, NPM, and Jest to ensure reliable, automated operation across multiple installations.

EDUCATION -

Master's Degree in Computer Engineering (Software)

2015 - 2018

Politecnico di Torino (Torino, IT)

• 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

2011 - 2015

Politecnico di Torino (Torino, IT)

• 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.

LANGUAGES -

- · Italian native
- English (Fluent B2/C1)

SIDE PROJECTS & HOBBIES —

- **Personal website** (<u>www.francescolongo.cloud</u>): Static portfolio website hosted on AWS S3 and fully managed via Terraform, with automated provisioning of storage, policies and delivery settings..
- Wedding website (<u>www.leididiaprile.it</u>): Co-developed with my partner; I built the backend using AWS Lambda, DynamoDB, S3 and Route 53, managing RSVP APIs, monitoring via CloudWatch and full event automation, along with a CI/CD pipeline for the frontend.
- Football Rules Quiz: Designed and implemented a Telegram bot with Node.js, TypeScript, NestJS, and PostgreSQL, now migrating to a serverless AWS stack.
- · Amazon Referral Project: Telegram bot integrating Amazon PAAPI, RabbitMQ, and PostgreSQL to automatically post affiliate links.
- **Football Referee**: Active regional referee with years of experience managing competitive matches. Strengthened skills in decision-making under pressure, discipline, conflict resolution, and leadership in dynamic environments.

CERTIFICATIONS & GOALS

- AWS Certified Solutions Architect Associate SAA-C03 (AWS)
- AWS Certified Cloud Practitioner CLF-C02 (AWS)
- AWS Certified AI Practitioner AIF-C01 (AWS)
- Registered Engineer Ordine degli Ingegneri, Albo A (Turin)
- Udemy Courses
 - Terraform: The Complete Guide from Beginner to Expert
 - Serverless projects with CDK, CloudFormation, Cognito, Lambda and Amplify
 - Complete Agile Scrum Master Certification Training
 - <u>Unit Testing for Typescript</u> & NodeJs Developers with Jest
 - The Git & Github Bootcamp
 - Typescript: The complete Developer's Guide
 - The Complete Developers Guide to MongoDB
 - Learn DevOps: CI/CD with Jenkins using Pipelines and Docker
- Next Goals
 - AWS Certified Developer Associate DVA-C02 (target Dec 2025)
 - HashiCorp Terraform Associate (target Dec 2025)

