Francesco Iannuzzelli

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Phone:	+31-6-20275456
Date of birth:	18 May 1967
Nationality:	Italian & British

Senior Full-stack engineer / Data Scientist / Data Engineer / Technical Lead.
More than 30 years of international experience in designing, delivering and supporting decentralised and scalable enterprise solutions in several industries (financial services, journalism, e-commerce, retail, broadcasting, tourism, publishing, education, environment).
Specialities: cloud, big data, data engineering, data science, data analysis, databases, Linux, networking, security, web applications, content management, containerisation.

Skills summary
(all to be intended with at least a few years of experience in production)

Systems management & devops (cloud / on-premises)
Linux, containerisation (Docker), orchestration (Kubernetes), networking, security, mail transport, web servers (Apache, Nginx), shell scripting, cloud-vendors (AWS, GCP, Azure) design, support, optimisation and cost management, source control (Git), automation, CI/CD

Database administration and development (SQL / NoSQL / Graph)
MySQL, PostgreSQL, Redis, MongoDB, Elasticsearch, Neo4j, TigerGraph

Data Science / Data analysis
Data analysis, probability, statistics, neural networks, machine learning, anomaly detection, NLP, graph analytics, synthetic data generation, ethical issues and bias detection, explainability (XAI).

Data Architecture / Data engineering / Knowledge representation and interchange
Data modeling, data management, ETL (Nifi), distributed processing (Hadoop, Spark), Ontology design, Semantic Web, RDF, OWL, CGIF

Software architecture, development and testing
Requirements analysis and definition (UML), Object Oriented development, microservice architectures, API first, CI/CD, Agile methodologies, test-driven development, performance testing. Fluent in PHP, Python, JavaScript. Familiar with Java, Scala, C#, Perl.

User Interface design and development
Web standards, CSS, XSLT, logic-less templates (Dust), JavaScript frameworks (jQuery, React), data visualisation (D3.js), accessibility, usability, graphic design, responsive design, UX, UCD, SEO.

Internationalization and localization
Design and migration of online applications to support multiple language interfaces (also RTL)

Communication platforms
Fediverse applications (Mastodon), collaborative platforms (RocketChat), chat-bots (Telegram)

Audio and video production / post-production / distribution
DAW , muysic notation and production, audio editing, composition and orchestration for Film and TV

Teaching & E-Learning
Course preparation and delivery, software documentation, LMS (Moodle, Open edX)

Financial Crime
Intelligence specialist and SME across multiple predicate offences, specifically labour and human trafficking, sexual exploitation, organised crime, environmental crime, corruption, money laundering.

Work history

2019 - 2022: [RedCompass Labs](#) - London (UK)

Financial Crime Technology Lead

Development of data science analytical toolkit, specifically for the detection of human trafficking, modern slavery and organized crime. Setup and maintenance of the dev / test / demo / production environments. Pre-sales support.

Financial Investigation Specialist

Define investigative hypotheses in a number of predicate offences and conduct their research and validation on premises for financial institutions, in any available technical stack.

Data Scientist

Content preparation and delivery of the Data Science Academy for a team of junior employees. Co-lead the Data Science Skills Network, organising the production and dissemination of materials for all employees.

Data Engineer

Development of cloud-based scalable data harvesting, ingestion and transformation platform. Use of Open Source Intelligence tools.

2014 - 2019: Dadi+ (now [Edge](#)) - London (UK)

Technical Director

Leading and overseeing delivery teams for multiple high-profile clients in the publishing and broadcasting sectors. Instigating and maintaining technical process and best practices. Mentoring key members of the team, and acting as an escalation path.

Infrastructure lead and dev-ops consulting. Multiple AWS accounts management and optimisation for both internal projects and external clients.

Design, development and support of API-first scalable PHP and Nodejs applications based on containerised micro-services. CMS development.

Security policies, assessment and penetration testing.

Definition and implementation of SLAs, ticketing system (Zendesk) and support rota.

Monitoring, analytics and reporting tools for both support and marketing needs.

ICO preparation and support for the DADI crypto-currency launch. KYC process. Ethereum Smart contract development / testing.

2001 - 2014: [IVIS Group](#) - London (UK)

Technical Architect

Delivery on time and on budget of a number of high-profile projects in UK, Malaysia, China, Italy and Sweden. CMS customization and development on LAMP platforms. Consulting for international multi-channel e-commerce solutions. Training courses for internal staff and clients. Pre-sales. Recruitment.

Systems Manager & Database Administrator

Team lead and coordination during expansion of operations in UK and Malaysia. Network design and management. Integration between Linux and Windows systems . Automation procedures and large scale deployments . Administration and performance tuning of web applications. Relationship with IT suppliers.

Software Engineer

Product research and development using AI and Semantic Web languages to model business knowledge in the retail industry. Member of the W3C Web-Ontology working group. OO development (Java, C#). Maintainer of the open-source portal management system PhPeace.

User Interface (UI) and User Experience (UX) Consultant

Design and implementation of presentation layers for multi-channel transactional websites.

1996 – 2001: Self-employed – Milano (Italy)

Web development and Internet service provider (FOSS).

Education & Qualifications

Massachusetts Institute of Technology
MicroMasters Program in Statistics and Data Science
Probability, Statistics, Data analysis in Social Science, Machine Learning

ManchesterCF
Financial Intelligence Specialist
OS INT, Financial Investigations, Money Laundering, Corruption, Economic Sanctions, Private banking, Correspondent Banking, Cryptoassets, Wildlife Trafficking, Environmental Crime, Art & Antiquities, Capital Markets, Terrorist Financing, Human Trafficking, Critical Thinking, Report Writing.

Politecnico di Milano – Italy
M.Sc., Electronic Engineering & Computer Science
Dissertation titled "Simulation of acoustic and music training using neural networks"

Industry qualifications
Deeplearning.AI specialization, Certified Neo4j Professional, Certified TigerGraph Associate, Linux Professional Institute Level 3, Oracle Certified Expert in MySQL Cluster Administration, MySQL Admin, MySQL Developer, Zend PHP Certified Engineer.

Interests and hobbies

Fluent musician and award-winning composer, specialised in World Music.
Free-lance journalist on disarmament and migrant rights.
Technical coordinator of the historical Italian association PeaceLink, which provides educational and technological support for initiatives in active citizenship, solidarity, peace and environmental issues.

References available on request