

# Francesco Schino

## Software Engineer

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**Right to work in the UK: Settled Status / ILR (No Sponsorship Required)**

### PROFILE SUMMARY

Full-Stack Software Engineer with 10+ years of experience spanning backend systems, browser automation, AI/LLM integration, and production infrastructure. Proven ability to design and ship end-to-end solutions, from React PWAs deployed on Vercel to Python backends running on Raspberry Pi with systemd and ngrok. Experienced in building agentic AI pipelines with LangChain (structured output, multi-provider, async orchestration), browser extensions with Playwright-driven automation, and real-time data processing systems. Background in cybersecurity (Deloitte), IoT/Big Data (Capgemini), and media technology (Eurofins). Comfortable leading teams of 70+ and writing production code at the same time.

### SKILLS

**PROFESSIONAL** Agile (Scrum, Kanban) | Team Leadership & Mentoring | Technical Recruitment | Stakeholder Management | Cross-Team Communication | Strategic Thinking | Quality Management | Process Design & Optimisation

**LANGUAGES** Python (Advanced) | JavaScript / TypeScript | C# (.NET Core) | Java | SQL | Bash | HTML | CSS

**FRAMEWORKS & TOOLS** React | Next.js | Tailwind CSS | Django | Flask | FastAPI | Express.js | Node.js | Spring Boot | Celery | Redis | WebSockets | Socket.IO | REST APIs | Selenium | Playwright | BeautifulSoup | Pandas | Pydantic | Git | Docker | Gunicorn | Daphne / ASGI | SQLite | Oracle | MongoDB | BrainFlow | DSP (FFT, Bandpass/Notch Filters) | Browser Extensions (Manifest V3, Service Workers)

**AI / ML** LangChain | Structured Output | Prompt Engineering | Gemini API | OpenAI API | Claude API | Local LLMs (Qwen, LLaMA, Mistral, Dolphin) | Ollama | Hugging Face

**INFRASTRUCTURE** CI/CD | GitHub Actions | Jenkins | AWS | Docker | Linux & Bash Scripting | systemd | Ngrok | DRM (PlayReady, Widevine, Marlin) | FFmpeg | MediaInfo

## WORK EXPERIENCE

**Independent AI Engineer & Consultant | B2B Solutions** UK (Remote)  
Jan 2024 – Present

- Built **Taylored CV**: an agentic LangChain pipeline that auto-tailors a CV and cover letter to a job description. Implements multi-stage async orchestration with `asyncio.gather()`, Pydantic structured output, STAR method retrieval, and supports both Google Gemini and local Ollama models as pluggable providers.
- Built **AutoEasy**: a Chrome extension (Manifest V3, Service Worker, Side Panel) that automates job applications end-to-end. Uses Playwright for dynamic form interaction and a local Ollama LLM to intelligently answer form questions based on a user profile. Includes automated error recovery, Jest tests, and a GitHub Actions CI/CD pipeline.
- Built **GABS Booking System**: a completely autonomous full-stack production application (Flask + React PWA) deployed on a Raspberry Pi Zero (constrained hardware) via systemd and Ngrok, actively serving 5 users with ~20 bookings/week. Includes a background scheduler, Web Push Notifications, Swagger/OpenAPI documentation, Docker support, and >94% automated test coverage.
- Built **CyberChecker**: a defensive security scanner combining TruffleHog regex patterns, Shannon entropy analysis, deep crawling via Katana (ProjectDiscovery), and Selenium-based JS rendering to detect exposed credentials and API keys.
- Prototyping **Neuro-UX Analytics**: a BCI system that synchronises real-time EEG data (Emotiv Epoc, BrainFlow) with browser DOM events (click, scroll, page\_load) to generate cognitive heatmaps. Implements a full DSP pipeline: Bandpass (1–50Hz), Notch (50Hz), FFT/PSD, and custom Workload Index (Frontal Theta / Parietal Alpha).
- Experimented with and deployed multiple local LLMs (Qwen, LLaMA, Mistral, Dolphin) for prototyping and production inference, benchmarking model performance across tasks against cloud provider APIs.

*Tools Used: Python, JavaScript, TypeScript, LangChain, Pydantic, Playwright, FastAPI, Flask, React, Tailwind CSS, Ollama, Gemini API, OpenAI API, Docker, GitHub Actions, systemd, Ngrok, Gunicorn, Celery, Redis, SQLite, Selenium, Katana, BrainFlow,*

<b>Software Engineering Manager &amp; Head of Quality   Coding Giants</b>	UK (Remote)
	Aug 2023 – Jun 2025

- Established the Italian branch from the ground up, working directly with founders and the Country Manager to design the quality management system — including quality manual, procedures, work instructions, and compliance frameworks.
- Built and led a team of 70+ members: owned the full recruitment lifecycle (job postings, interviews, onboarding/offboarding) and ensured continuous KPI achievement through structured performance tracking and Agile/SCRUM task management.
- Applied coding skills to automate and streamline operations: built **QMDashboard** (Django, Celery, Redis, Django Channels / ASGI WebSockets) for real-time KPI monitoring, and **QMSchoolBot** (Selenium, Google Sheets API, Pandas) to automate teacher reservation tracking and course material auditing for 70+ staff.
- Automated contract generation from HR data using Python and python-docx, reducing preparation time from hours to seconds; used Apps Script to extend and automate Google Workspace workflows.
- Managed risks, ensured legal and regulatory compliance, and drove continuous improvement of organisational processes.

*Tools Used: Python, Django, Celery, Redis, Django Channels, Daphne, ASGI, Selenium, Google Sheets API, Pandas, python-docx, Apps Script, Trello, Notion, Traffit, Teamtailor, DocuSign, Tableau, ProofHub, Google Workspace*

<b>Software Engineer   Eurofins Digital Testing</b>	Bristol, UK
	May 2018 – Apr 2023

- Designed and implemented test plans, automated and manual test cases, and DASH-format test media for the broadband and broadcasting industry, working to standards including **HbbTV**, **DVB-T2**, **ATSC 3.0** and serving clients such as **BBC** and **Tivùsat**.
- Led a team of 8 engineers, managing project deliverables, stakeholder audits, and issue tracking (Redmine), achieving a 40% reduction in open-issue delays.
- Managed the '**4K HDR Ultra HD**' certification programme for CE manufacturers including LG, Hisense, and Panasonic, ensuring 100% compliance with industry standards.
- Developed features for a QA analyser tool in C# to process **IMF (Interoperable Mastering Format)** and **MXF (Material Exchange Format)** media, supporting clients such as HBO in validating content for Netflix publication.

- Developed automated testing frameworks in Python and C#, increasing testing efficiency by 20% and reducing manual effort by 30%. Engineered a remote testing solution during COVID-19 that boosted efficiency by 70% with zero loss of output.
- Implemented CI/CD with Jenkins and Git; worked extensively with DRM technologies (PlayReady, Widevine, Marlin, ClearKey) and media pipelines (FFmpeg, MediaInfo, video encoding).

*Tools Used: Python, C#, JavaScript, Pandas, ElementTree, Unittest, Selenium, GWT, YAML, Regex, XML, JSON, Jira, Jenkins, Git, SVN, Postman, SoapUI, FFmpeg, MediaInfo, Video Encoding, DRM (PlayReady, Widevine, Marlin, ClearKey), HbbTV, DVB-T2, ATSC 3.0, IMF, MXF, Redmine, VSCode, AWS*

#### **Analyst 2 – Cyber Security | Deloitte & Touche (Contract)**

Rome, Italy

Nov 2016 – Jul 2017

- Managed IT security and risk transformation projects for Leonardo S.p.A. (aerospace & defence client) in the areas of Cyber Defence and Cyber Resilience.
- Applied and audited security standards including ISO/IEC 27001, NIST Cybersecurity Framework, COBIT, and ITIL.
- Led system integration efforts via REST APIs, enhancing data security, compliance, and platform interoperability.
- Conducted requirements gathering and technical documentation under tight deadlines; boosted platform adoption by 50% among stakeholders through targeted UX and training improvements.

*Tools Used: RSA Archer, JavaScript, XML, HTML, REST APIs, MS Excel, PowerPoint, ISO/IEC 27001, NIST CSF, COBIT, ITIL*

#### **Software Developer | Capgemini**

Rome, Italy

Oct 2015 – Nov 2016

- Developed IoT and Big Data solutions in Java for Octo Telematics, implementing event-driven architectures with scalable microservices and complex event processing (Esper EPL).
- Built scalable REST and SOAP microservices for international telecom traffic management at Telecom Italia Sparkle, with Oracle DB and high-availability requirements.
- Designed and implemented SMS routing systems and configuration management applications using Spring, Hibernate, Maven, and Tomcat.

*Tools Used: Java, Spring, Hibernate, Maven, Tomcat, REST, SOAP, SQL, Oracle,*

*MongoDB, EPL (Esper), IoT, Linux, SVN, Virtualization, CSS, HTML*

## **EDUCATION & CERTIFICATIONS**

- BSc Computer Science, University of Bari, Italy (2015) — studied part-time alongside professional experience
- C# Programming Language, QA Ltd (2020)
- Developing on AWS, QA Ltd (2020)
- BCS EXIN Certificate in Agile Scrum, Bath Spa University (2025)
- Hugging Face Agents Course, Hugging Face (Ongoing)

## **LANGUAGES**

Italian – Native | English – Proficient | Spanish – Elementary

## **ADDITIONAL INFORMATION**

- DBS Check (UK): Enhanced Certificate