Antonio Ferraro

Senior Python Developer / Experienced IT Professional

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→ PERSONAL PROFILE

Senior Java and Python/Backend Developer with experience across military and energy-sector software, including Python, Java, micro-services, Linux, Kubernetes, PostgreSQL, and FastAPI. Brings long experience in system integration, testing, and tactical data link environments, with delivery across entities like IBM Germany, NATO, and CORESO.

→ PROFESSIONAL EXPERIENCE

07/2019 – Visé - (B)	• Founder and CTO of SaF IT Services (SaFITS).
01/2024 – 31/07/2026 For IBM DEU	• **Software Lead Developer** for IBM Germany in the military sector (Tactical Data Links). • Projects: Delivered a System to Control the Tactical Data Link Communications for a Naval Unit. • **Technologies**: Java 17-21/Eclipse, Git/Gitlab Maven, Eclipse RCP.
04/2023 – 18/09/2026 For NCIA/SSSB	• **Instructor** for the NATO NCIA/SSSB Section, (3-10 weeks per year). On-site delivery of Operator's and System Administrator's Training for the SSSB (Ship Shore Ship Buffer) System personnel. • **Technologies**: Linux, TCP/IP networking, Virtualization, LibreOffice/MS Office
05/2021 – 12/2023 For CORESO	• **Python Developer** on CORESO's internal software team, working with Python, FastAPI, Kafka, PostgreSQL, Docker, Kubernetes, and REST micro-services. • Projects: Related to the forecasting processes for European electrical lines that cross Country borders, and support an Operation's room that works 24/7. • **Technologies**: Python: Python/Pycharm, Git/Gitlab, PyQt/PySide2 REDIS, Minio, PostgreSQL, FastAPI, Kafka, Pytest, Poetry, mkdocs, mermaid, CI pipelines, Docker, Kubernetes, REST microservices, Vue.js/Quasar.

08/2020 05/2021 For various customers	• **Developer and Analyst** delivering Python, Java and PHP software for military (IBM DEU and NATO) and civil sector customers (AM Consilium) • **Technologies**: • Python: Python/Pycharm, Microsoft VS Code, Git/Github/Gitlab, PyQt/PySide2 toolkits, Flask/Flask-Socketio, REST microservices / Postman / RESTer / Bruno PHP. • Java: Java 8 - 11 / Intellij and Eclipse, SpringBoot, Websockets / STOMP. Python 3.9+, Pycharm, VSCode, Docker, MySQL, PHP • Frontend: PHP/HTML/CSS/JS – Bootstrap, Angular, Jquery
01/12/2020 – 31/01/2021 For VLIZ – Ostende - (B)	• **Python Developer** for the implementation of a Quality Control system on a Marine Biodiversity database (EUROBIS-QC) – founded by EU • **Technologies**: Python/Pycharm, REST API calls, MS SQL, SQLITE, Dbeaver, multiprocessing, Git/Github, Nosetest, Easygui • Link: https://github.com/lifewatch/eurobis-qc
10/2019 – 01/2020 For NCIA/SSSB	• **System Engineer** for the NATO NCIA/SSSB Section. Software Documentation, Project Support, Testing and Training. • **Technologies**: Java/Eclipse, MS Sharepoint, MS Visio
07/2019 – 12/2019 For Lampiris – Liege (B)	• **Java Developer** for Lampiris in the "Finance" tribe. • Project: Verification of invoicing algorithms for calculation of gas and electricity amounts in accordance with the European laws, in the scope of the migration of the Lampiris France customer base into Direct Energy (acquisition of Lampiris by the Total Group). • Implementation of a prototype application for invoicing "new services" offered by Lampiris on the Belgian market. • **Technologies**: Java/IntelliJ Idea, Spring/Spring Boot, Hibernate, Angular, microservices, Gitlab, JIRA/Confluence, Postgresql, MS SQL, Postman.
06/2007 – 06/2019 NATO NCIA/SSSB - NPC Glons(B)	• **Deputy Section Chief** of a Section of 11 employees, Software and System Analyst. Successfully led: • Software release cycles and one-shot software projects • System Engineering/Project Management: Multidisciplinary integration / modernization / upgrade projects of communication and control sites, including all project phases from inception to technical drawings, lab evaluations, software and hardware development, procurement, assembly, lab testing, deployment, verification and training. • Organization and coordination of Tactical Data Link test efforts. • Redaction of technical specifications and bid documentation for new products (SSSB ALAM). • Responsible for requirement collection / analysis, customer relations. • **Technologies**: Java/Eclipse, C, MS Sharepoint, MS Visio, laboratory assets
07/2003 – 06/2007 NATO NSPA/SSSB - NPC Glons (B)	• **Section Chief** DHDS Cell, consisting of 4 employees. With Project Manager and Senior Analyst Programmer responsibilities. • Project: Successfully led SW transition phase from vendor delivery to Operations and full Software (and System) Maintenance. • **Technologies**: C/Source Navigator, Perl, Unix scripting, SQL.

05/2000 – 06/2003 NATO NSPA/SSSB - NPC Glons (B)	• **C Analyst Programmer** • Tasks: Software maintenance of a Tactical Data Link System • **Technologies**: C/Source Navigator, Perl, Unix scripting, SQL.
11/1995 – 05/2000 NATO STO/CMRE - La Spezia - (I)	• **Software Developer** within the Operational Research Department • Sole Developer Responsible for the successful development of EMiR - The Electronic Minefield Referee • **Technologies**: Object Pascal/Delphi, C, CVS. Linear optimization libraries
02/1994 – 11/1995 Iris Technologies – Milan, (I)	• **Developer/Consultant**. Responsible for the Client-Server development area. Sole developer on projects for customers: • Laboratoires Boiron (Accountancy data aggregation and drill down) • JP Morgan Bank (Backup offline application for principal system) • Mercur Assistance (Now part of Allianz Global Assistance) – Full Call Centre management application • **Technologies**: VB / VBA / Powerbuilder / MS SQL Server / Sybase.
02/1992 – 02/1994 Microsoft Ireland – Dublin (IE)	• **External Localization coordinator**, in the Workgroup Business Unit. • Tasks: Responsible for the coordination of the localization efforts for MS Mail Client 3.0, Schedule+, and also many others. • **Technologies**: MS ecosystem of the time, including MS Delta for source code versioning

→ NATO – HIGHLIGHTS OF EXPERIENCE

Tactical Data Links:	Air Defense Systems including Tactical Data Links (TDL) Link 11/11B, Link 1, Link 22, Link 16/JREAP-C, integration of AIS sources, design and execution of TDL Systems interoperability tests and assessments, acceptance tests, verification of test plans and procedures, requirement specifications, documentation. Re-Engineering of Communication sites and Communication sites Remote Control Solutions, including all aspects.
PM and Team Lead:	Project management and Team Lead experience

→ EDUCATION

Pisa University (Italy) 1985 - 1991	**COMPUTER SCIENCES DEGREE (MS)** Computer Science (Scienze dell'Informazione), with focus in Theory of Models, theory of Optimization and Simulation University of Pisa – ITALY (https://www.di.unipi.it/en)
1980- 1985	**SECONDARY EDUCATION :** I.I.S.S.S. Axel Munthe, Anacapri (NA) - Italy **(http://www.istitutoaxelmunthe.edu.it/index.php)**
Certificates (Only a selection mentioned here)	**Data Science Specialization** (John Hopkins University – Coursera) **Machine Learning** (Stanford University – Coursera) **Statistical Learning** (Stanford University) lagunita.stanford.edu (it is no more) **Developing Websites Using Python and Django** (Microsoft Virtual Academy) **Applied Data Science with Python** (IBM) (**https://cognitiveclass.ai**, badges visible on **https://www.youracclaim.com/users/antonio-ferraro/badges**) And more (most of the certifications can be found on my **LinkedIn** profile).
Academic Interests	Programming, optimization, user interfaces, data Science

→ TECHNICAL SKILLS

Programming Languages, libraries, skills:	Python (Flask, Numpy, Pandas, FastAPI, SqlAlchemy, Pydantic, PyQT/PySide2...), Java /JEE (Spring, Spring Boot, Hibernate), Web Services/Microservices, Eclipse RCP, Swing/Awt, C, R, C++ and Javascript, PHP (older versions), VB / VBA, Object Pascal (Delphi), Powerbuilder, XML/HTML/CSS/Bootstrap, handling of data in XML/JSON.
Scripting:	Bash, Perl
Databases:	MS SQL, MySQL, Postgresql, SQLite, DuckDB and SQL in general.
Integrated Development Environments:	Eclipse (for Java and C), Intellij Idea. Pycharm/Atom/Wing IDE (Python), Jupyter Notebook (Python, R, Nodes), Rstudio, Geany for small tasks, Delphi/Lazarus for Object Pascal.
CI/CD:	Gitlab, Jenkins
Web Services/API Testing:	Postman, SOAPUi, Bruno, RESTer extension for Chrome
Virtualization:	Virtualbox, VMWare, Solaris Zones
Os Administration:	Oracle Solaris 8, 10, 11, UNIX/Linux (Red Hat and Ubuntu families current versions), Windows up to 2012
Os as Advanced User:	All of the above and Mac OS X, Android
Version Control tools:	Git, SVN, CVS, RCS, MS Sharepoint
Network Administration:	CISCO and network design and administration (CCNA), RAD Megaplex Configuration and Administration, Network services design / reorganization.
CMS:	Wordpress, Joomla, Hugo.
Graphics and Design tools:	MS Visio, Inkscape, GIMP, Photoshop, Ms Publisher, Dia, Draw.io/Diagrams.net
Office / Desktop Applications / Typesetting systems	MS Office, Libreoffice, DrawIO, Adobe, Gimp, Inkscape, Latex and more.

→ LANGUAGES

Mother tongue	**Italian**
Foreign languages	**English** Excellent command, comprehension, written and spoken **French** Excellent command, comprehension, written and spoken. **German** Basic knowledge (certificate A2), basic comprehension written and spoken **Dutch** Basic knowledge, reading and understanding, weak written and spoken (Certificate A1) **Spanish** Good knowledge, comprehension and reading, weak written and spoken.

→ REFERENCES

- References shall be provided on request.

→ OTHER

- Driving License type B
- Linkedin profile: https://www.linkedin.com/in/antonio-ferraro-860b1825
- Company's web page: http://safits.be

→ PERSONAL INTERESTS AND HOBBIES

No Profit: In the wake of the COVID-19 emergency, I developed ideessuspendues.be, a social platform to collect ideas to help SMEs to continue or resume business safely. The site is now offline.

Personal interest: Deep Learning and LLMs, local and "Frontier". See https://giunio.it/talks/pycon-italia-2026/ (my contribution is in the advice and testing), (code here: https://github.com/giunio-prc/RAG-Powered-Chatbot). I've also implemented my own, using different technologies and local LLMs: https://github.com/anfe67/rag-local

Data Science blog. I am gathering a Data Science understanding by means of online courses and certifications and I run a blog about this experience: antonio-ferraro.eu5.net

Personal interest: Python blog. Teaching Python to my son and his friends, two hours every week-end. I keep the highlights of our lessons in this blog: apprenons-python.c1.biz

As I like exploring new technologies, and computing is for me somewhat of a passion other than just a job, I spent a bit of time investigating Hugo to create another minuscule blog site, one that can be maintained with minimal effort, yet allows to obtain decent results: https://anfe67.github.io/. (Working links for the two above can be found there).

Hobbies: Music (playing guitar), travel, football, volleyball, learning new things about IT, reading, gardening.