

Stéphane Wirtel

Senior Python Consultant · CPython Core Developer · PSF Fellow

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Profile

Over twenty years building robust, scalable and maintainable Python systems across varied contexts. CPython Core Developer since 2019, PSF Fellow since 2013, international conference speaker for over a decade. Founder of Mgx.io SRL, working directly with engineering teams, no middleman. Based in Charleroi, Belgium. Available fully remote across Europe.

Experience

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| <p>European Investment Bank (EIB), Senior Python Consultant (via MGX.IO SRL)</p> <ul style="list-style-type: none"> Led development of credit risk calculation tools for the Technical Assessment Unit advising the European Commission under the InvestEU guarantee mandate. Built Protog, a Monte Carlo credit risk engine computing expected losses with multi-tranche support. Delivered DataTreatment ETL pipeline standardising heterogeneous Excel datasets with Pandera validation. Created Cashflow Generator and Cashflow-Rebucketer tools for risk modeling. Designed a 4-interface demonstrator (CLI, FastAPI, Vue.js, xlwings) supporting daily risk operations. Stack: Python, FastAPI, Pandas, DuckDB, Vue.js, Pandera, xlwings, Typer, SQLAlchemy | <p>Luxembourg
Dec 2022 – Apr 2025
2 years 5 months</p> |
| <p>Ipify, Senior Full-Stack Developer (via MGX.IO SRL)</p> <ul style="list-style-type: none"> Built Canopy, an end-to-end intellectual property management SaaS platform. Designed hexagonal architecture with FastAPI backend and PostgreSQL. Implemented a document template rule engine with automatic generation from business workflows. Built Vue.js 3 frontend with reusable design system. Optimised GitLab CI/CD pipelines reducing build times by 40%. Supported migration from Heroku/Netlify prototype to AWS production. Stack: Python, FastAPI, PostgreSQL, SQLAlchemy, Alembic, Celery, Redis, Vue.js 3, TailwindCSS, Vite, MinIO, Docker, GitLab CI, AWS | <p>Lyon, France
Sept 2021 – June 2022
10 months</p> |
| <p>ENTSO-E, Python Expert (via MGX.IO SRL)</p> <ul style="list-style-type: none"> Designed and built a PoC to replace a fragile monolithic Java application unable to handle peak loads, validating an event-driven architecture processing hundreds of thousands of XML requests. Built async Python services with Apache Kafka at the core, Faust for stream processing, and Avro for XML-based message exchange. Persistence layer: Cassandra, Elasticsearch, InfluxDB, Redis. Deployed on Kubernetes with Istio service mesh, provisioned via Terraform/Ansible on OVH Cloud. Validated throughput under realistic conditions using Locust in distributed mode. Stack: Python, Faust, Kafka, Avro, Cassandra, Elasticsearch, InfluxDB, Redis, Vue.js, Keycloak, Kubernetes, Istio, Terraform, Ansible, GitLab CI, OVH, Locust | <p>Brussels, Belgium
Sept 2019 – Dec 2020
1 year 4 months</p> |

<p>OncoDNA S.A., Python Expert (via MGX.IO SRL)</p> <ul style="list-style-type: none"> • Modernised the OncoKDM precision oncology platform. • Built and maintained the central Django REST Framework API managing genomic and clinical data. • Implemented OAuth2 authentication with role-based permissions. • Built a migration framework for the legacy OncoShare system to PostgreSQL. • Developed the AngularJS frontend and Docker Compose orchestration. • Stack: Python, Django, DRF, PostgreSQL, Redis, AngularJS, OAuth2, Celery, RQ, Docker, GitLab CI, Nginx, Pandas, ReportLab, Stripe 	<p>Gosselies, Belgium Nov 2018 – July 2019 9 months</p>
<p>Python Training – Makina Corpus & BNP Paribas, Python Trainer (via MGX.IO SRL)</p> <ul style="list-style-type: none"> • Delivered advanced Python training for development teams at Makina Corpus (Sep 2018, Toulouse) and BNP Paribas (Jun 2018, Brussels). • Topics covered advanced language features, design patterns and software engineering best practices. 	<p>Toulouse, France / Brussels, Belgium Jan 2018</p>
<p>UCLouvain, Python / Django Expert (via MGX.IO SRL)</p> <ul style="list-style-type: none"> • Development and software architecture coach for the migration from a monolithic Java + Oracle SQL Server application to Django + PostgreSQL, with an existing RabbitMQ gateway handling synchronisation. • Led migration from legacy Reddot CMS to a modern Django-based CMS. • Introduced Travis CI for continuous integration and implemented functional testing with Selenium and BDD methodologies. • Stack: Python, Django, DRF, PostgreSQL, RabbitMQ, Vue.js, Travis CI, Selenium, BDD 	<p>Louvain-la-Neuve, Belgium Feb 2017 – Oct 2018 1 year 9 months</p>
<p>Haulogy S.A., OdoO Technical Expert (via MGX.IO SRL)</p> <ul style="list-style-type: none"> • OdoO coach for development teams, improving code quality and establishing Python and OdoO best practices. • Directed migration of custom OdoO modules from v7.0 to v8.0. • Developed an automated migration tool using AST parsing with astroid. • Introduced automated testing and set up GitLab and GitLab Runners for CI/CD workflows. • Stack: Python, OdoO, astroid, GitLab CI, Docker 	<p>Nivelles, Belgium Feb 2017 – July 2018 1 year 6 months</p>
<p>RodeoFX, Python Coach (Freelance)</p> <ul style="list-style-type: none"> • Worked with the pipeline development team of this VFX studio to improve code quality and development practices. • Conducted code audits, delivered advanced Python training covering design patterns and best practices. • Implemented unit testing strategies with mocking frameworks and established Jenkins CI for automated testing. • Stack: Python, Unit Testing, Mocking, Jenkins CI, Refactoring 	<p>Montreal, Canada Jan 2016 – June 2016 6 months</p>
<p>BPSO, Python Expert (Freelance)</p> <ul style="list-style-type: none"> • Developed a Redis-based message broker in Python for distributed communications management. • Built a complete dashboard and web interface for real-time monitoring of message flows and system state. • Stack: Python, Redis, Web Development, Dashboard 	<p>Brussels, Belgium Jan 2016 – Dec 2016 1 year</p>
<p>Mirounga, Python Expert (Freelance)</p> <ul style="list-style-type: none"> • Developed a PoC leveraging Python 3.5 async capabilities using aiohhttp for async HTTP, SQLAlchemy ORM and aiopg for async PostgreSQL. • Stack: Python 3.5, aiohttp, SQLAlchemy, aiopg, asyncio 	<p>France June 2016</p>

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| <p>Eeze IT, Odoo Expert (Freelance)</p> <ul style="list-style-type: none"> • Deployed and customised Runbot to support BitBucket integration, enabling CI and automated testing for Odoo module development. • Stack: Odoo, Python, Runbot, BitBucket, CI/CD | <p>Brussels, Belgium
 Sept 2014 – Dec 2014
 4 months</p> |
| <p>Odoo, Senior Software Engineer</p> <ul style="list-style-type: none"> • Lead developer on strategic modules of the OpenERP/Odoo ERP platform — 1000+ commits. • Refactored the Point of Sale module introducing session-based workflows, multi-journal support and hardware integration. • Developed the CRM mailgateway (IMAP/POP3) for automatic lead generation from emails. • Architected the database logging infrastructure (ir.logging) and refactored the workflow engine. • Author of Loempia, the app store framework behind apps.odoo.com. • SaaS engineer, release manager, support lead, technical trainer, and DevOps engineer (Nginx, Postfix, Linux). • Stack: Python, JavaScript, Flask, jQuery, Backbone.js, OpenERP, QWeb, XML-RPC, JSON-RPC, PostgreSQL, Nginx, Postfix, Git, Bazaar, Linux | <p>Grand-Rosière, Belgium
 Apr 2008 – June 2014
 6 years 3 months</p> |
| <p>Descasoft S.A., Junior Software Engineer</p> <ul style="list-style-type: none"> • Developed HealthWeb, a healthcare platform connecting patients and practitioners. • Implemented a print server using iText2 and Tomcat. • Stack: C++, Delphi, Java, Python, Ruby, J2EE, Tomcat, iText2, Oracle SQL, Microsoft SQL Server, Linux, Windows | <p>Charleroi, Belgium
 Oct 2004 – Apr 2008
 3 years 7 months</p> |
| <p>IFAPME, Linux Trainer</p> <ul style="list-style-type: none"> • Designed and delivered Linux system administration courses for professional learners. • Topics covered command-line, Bash shell scripting, server setup, networking and troubleshooting. | <p>Gilly, Belgium
 Sept 2003 – Aug 2005
 2 years</p> |

Education

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| <p>RNCP38016, Machine Learning & Deep Learning</p> | <p>Remote (FOAD)
 Sept 2025 – Dec 2025</p> |
| <p>RS6515Alyra, Blockchain & Web3 / DApp Solidity</p> | <p>Remote (FOAD)
 Jan 2025 – Apr 2025</p> |
| <p>Graduate - UMONS / ISE Flénu / Mons Formation, Management Information Systems</p> | <p>Mons, Belgium
 Jan 1998 – Jan 2003</p> |

Community & Open Source

- CPython Core Developer:** Since 2019
- PSF Fellow:** Since 2013
- PSF Community Service Award:** 2016
- EuroPython Society Board Member:** 2019 – 2020
- Python Ireland Member:** 2015 – present

Conferences

18+ international talks: EuroPython (2015–2020), PyCon US (2016–2017), PyCon Ireland (2015–2018), PyCon France (2013–2018), PyCon UK (2015, 2018), FOSDEM Python Track (2015–2016), PyCon DE/IT/UA/CA/SK (2018–2019)

Technical Skills

Programming: Python (20+ years, CPython Core Developer), Go, JavaScript, TypeScript, C/C++, Erlang

Frameworks: FastAPI, Flask, Django, Django REST Framework, Streamlit, VueJS, ReactJS

Databases: PostgreSQL, SQLite, DuckDB, Redis, Cassandra, Elasticsearch, InfluxDB, ChromaDB, Neo4j

Messaging: Kafka, RabbitMQ, Redis Pub/Sub, FastStream, Faust, Celery, Pika

AI & LLM: Machine Learning, Deep Learning, LLM, RAG, LangChain, LangGraph, FastMCP, Claude Agent SDK

Architecture: Microservices, Event-Driven, Hexagonal, DDD, Clean Architecture

Methodology: TDD, BDD, DevSecOps, Code Review, API-First Design, 12-Factor App, Agile/Scrum, Pair Programming

DevOps: Docker, Kubernetes, Traefik, GitLab CI, GitHub Actions, Terraform, OpenTofu, Ansible, OVH, AWS

Security: OAuth2, Keycloak, dependabot, renovatebot, pip-audit, trivy, Bandit

OS: Linux 20+ years (Debian/Ubuntu, RHEL, FreeBSD), macOS, Windows

Languages

French: Native

English: B2

Soft Skills

Public speaking (18+ international conferences)

Mentoring & coaching

Async & multicultural teamwork (India, Europe)

Technical writing & documentation

Training delivery & knowledge transfer