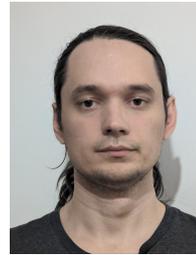# BERNÁT GÁBOR

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SUMMARY

Senior software engineer at Bloomberg, working remotely from Los Angeles since 2022, with 13+ years of experience spanning data ingestion pipelines, quality control systems, developer tooling, and open source leadership. Leads cross-cutting initiatives in Python packaging, developer experience, and platform engineering. Maintains 30+ Python ecosystem projects including virtualenv, tox, build, pipx, and pipdeptree. Python Software Foundation Fellow (2021). Delivered 15+ talks at PyCon US, EuroPython, PyTexas, and PyLondinium (2018–2025) on packaging standards, virtual environments, type hints, and Python–Rust interoperability.

EXPERIENCE

Bloomberg   2025 April – present
Senior Software Engineer – Developer Experience   *Los Angeles, USA (remote)*

Works on internal artifact repository hosting and developer tooling with broad cross-team impact spanning 13+ organizations. Led development of a portal for Python package and Docker image discovery with namespace browsing, wheel compatibility filtering, and a two-tier caching strategy (Redis with in-memory fallback), optimizing cache loading by 25% using trie-based data structures. Built notification infrastructure for artifact events (Kafka, webhook with HMAC-SHA256 authentication).

Overhauled authentication and observability for an enterprise code search platform, migrating from Lua scripts to a Go-based authentication service and adding fine-grained metrics per data source. Led CPython 3.14 enablement across 20+ internal services and static analysis tooling. Created and owned multiple linter integrations adopted across the company's inner-source static analysis ecosystem.

Built a Go backend for an internal conference platform with bulk sync endpoints and 85% database query reduction. Led the Python Guild's Packaging Working Group. Speaker at PyTexas 2025 and PyCon US 2025.

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Bloomberg   2022 June – 2025 April
Senior Software Engineer – Data Technologies, Quality Control   *Los Angeles, USA (remote)*

Built metrics ingestion orchestration services for data pipeline quality measurement with deduplication, failure tracking, and workflow orchestration. Developed S3 polling services and a web portal for storage platform management with authentication, credential management, and configuration UIs. Created a FastAPI single sign-on integration library adopted across multiple services. Extended metric calculation with dimensions such as timeliness and remediation. Led the Python Guild's Packaging Working Group and built the internal Python package registry site. Created an internal conference platform for Guild Week events. Maintained internal tools including type generation from schemas, HTTP client libraries, and Jenkins CI pipeline libraries.

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Bloomberg   2016 April–2022 June
Software Engineer → Senior (2019) – Data Technologies, Quality Control   *London, United Kingdom*

Core developer of the Business Rule Engine (BRE), a Python framework enabling financial analysts to author heuristic and statistical validation rules over a microservice platform. The system automatically collected metadata for provenance and data ingestion quality tracking. Built metrics systems measuring pipeline quality and dataset health. Led the Python Guild's Conference Working Group (2017–2022) and served as Guild Chair. Maintained internal developer tools (type generation, HTTP client, networking libraries, CI pipeline library).

Gravity Research & Development   *2011 September–2016 March*
Software and Integration Engineer   *Budapest, Hungary*

Built and maintained a recommendation platform serving hundreds of millions of daily recommendations (SaaS) for clients such as dailymotion.com and allegro.pl. Handled client integrations, A/B testing, internal tooling, and mentoring.

OpenCV – Google Summer of Code 2011   *2011 May–August*
Technical writer and programmer   *Târgu Mureş, Romania*

Created reStructuredText tutorials for the OpenCV library and helped architect its documentation system.

OPEN SOURCE

Open source software developer   *2015–present*
bernat.tech/about

Author and primary maintainer of 30+ Python open source projects. Maintainer of virtualenv (since 2018, rewrote and re-released in 2020) and tox (since 2017, completed full rewrite as tox 4). Other high-profile projects: pipx, build, filelock, platformdirs, pipdeptree, pytest-env, pyproject-fmt, tox-uv, pre-commit-uv. Co-maintains Bloomberg open source projects pytest-memray and attrs-strict. Authored JetBrains plugins PyVenvManage and jetbrains-fish.

Involved in Python packaging standards (PEP-517, 518, 660, 662). Recent work includes Python/Rust projects (pyproject-fmt, toml-fmt). Python Software Foundation Fellow (2021 Q3). Technical reviewer for "Python Object-Oriented Programming 4th edition" by Steven Lott and Dusty Phillips. Blog post series on Python type hints and packaging reached number one on Hacker News.

EDUCATION

Budapest University of Technology and Economics, Hungary.   *2011 September–2013 June*
Master's degree in Engineering Information Technologist.

Major in *applied informatics* (grade 4.57/5 – excellent). Thesis: "Analysis of data mining and recommendation services: open source solutions on a scalable framework".

Sapientia – Hungarian University of Transylvania, Romania.   *2007 September–2011 June*
Bachelor's degree in Computer Science (grade 9.70/10).

Thesis: "Regional segmentation of images with B–Spline level set models".

TECHNICAL STRENGTHS

Languages	*Python* (primary), TypeScript, Java, Kotlin, Rust, Go, Bash, Fish, C/C++, LaTeX
Frameworks	FastAPI, React, Flask
Infrastructure	Docker, Kubernetes, Redis, Kafka, PostgreSQL, GitHub Actions, Jenkins
Tools	git, vim, tox, uv, ruff, pyright, VS Code, IntelliJ IDEA
Specialties	Developer tooling, packaging, static analysis, distributed systems, data pipelines