# Philipp Gillé - Résumé

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# Overview

- Senior software engineer
  - Backend developer, tech and project lead, architect for new features
  - Current stack: Go (Golang) microservices, PostgreSQL, Redis, gRPC
    / protobuf, HTTP, Kafka, RabbitMQ, Docker. On AWS with Kubernetes. Some Ruby and Elixir.
  - Past: Java, C#, mostly backend but also mobile apps. MongoDB, Hazelcast, HTTP, Docker. On-premise hosting.
  - See Hard skills for details
- Open source maintainer
  - Vector database library (AI / RAG), key-value store library for 20+ storage systems, Bitcoin / Lightning Network library for Go APIs
  - See Notable side projects for more
- Living in Leipzig, Germany
- Speaking fluent English and German, some French
- Willing to relocate or work remotely
  - Some cities I'd like to work in: San Francisco / Bay Area, Dubai, Singapore, Perth
- Willing to work full- or part-time, as well as contract work
- Preferring to work in either agile startups or innovative subsidiaries / departments of corporations

#### CV

In reverse-chronological order:

• 2014-01 - present: Work

- -2020-02 present: Senior software engineer at Heetch
  - \* Developing payments and finance related systems (cash / card / mobile wallet payments, ledger, invoices, ...) in Go
  - \* Maintaining and creating company-wide developer tooling (libraries, CLIs, GUIs) in Go
  - \* Maintaining and migrating legacy systems (Ruby and Elixir)
  - \* Leading the architecture and development of new features in project-based work, collaborating with other teams, EMs, PMs and stakeholders
  - \* Establishing standards, guidelines and best practices in the org as part of a cross-team tech lead group
  - \* Mentoring junior developers and peers
  - \* Interviewing job applicants
- 2014-01 2020-01: Software engineer at Apinauten GmbH
  - \* Developing Enterprise-Backend-as-a-Service in Java
  - \* Developing client SDKs in Java (Android) and C# (Xamarin)
  - \* Developing connectors to existing legacy systems
  - \* Project work (backends for customer-specific webapps), sometimes working on-site in customers' offices
  - \* Evaluating and defining architectures in a cross-team architecture board
- 2013-03 2013-12: Student employee at Sunato Gmbh (during university)
  - \* Developing mobile apps in C# (Windows Store, Windows Phone)
- 2010-09 2013-12: University
  - Hamburg University of Applied Sciences (HAW Hamburg)
  - Applied Computer Science
  - Bachelor's thesis: "A study about data exchange in mobile environments"
    - \* Compared SOAP, REST, OData, Binary Protocols (Apache Thrift) and Backend-as-a-Service
- 2010-02 2010-07: Traveling abroad
  - Backpacking around Australia
  - 2007-08 2010-01: Training / apprenticeship
    - In several subsidiaries of Bertelsmann AG, Gütersloh, Germany
    - In combination with the private school "b.i.b." in Paderborn, Germany
    - "Computer Science Expert, Subject Area: Software Development"
- 2006-07 2007-06: Basic military service
  - Main unit: EloKaBtl 932, Frankenberg (Eder), Germany
  - Boot camp: EloKaBtl 912, Nienburg (Weser), Germany
- 1993 2006: School
  - 1999 2006: Secondary school (Gymnasium) advanced courses:  $\it math$   $\it and physics$
  - 1993 1999: Primary school
- 1987-06-15: Born in Göttingen, Germany

#### Hard skills

Technologies, programming languages, frameworks, libraries, tools, ...

# In alphabetical order.

#### **Professional**

- Agile software development, Scrum
- Apache Avro
- Bash scripting
- Continuous Integration / Continuous Deployment
  - GitHub Actions, Drone, Jenkins, Travis CI, AppVeyor
- C# (6), .NET, Mono, .NET Core, LINQ
- Distributed systems
- Docker
- Git
- Go (Golang)
- gRPC
- IDEs: VS Code, Eclipse, MonoDevelop, Visual Studio
- Java (8), Java Streams
- Apache Kafka
- Linux command line
- Microservice architecture
- protobuf
- RabbitMQ
- RESTful APIs (HTTP)
- SQL in general (MS SQL, Oracle SQL, MySQL, PostgreSQL, SQLite)
- Testing (unit tests, mocking, component tests, E2E tests with Venom)

#### Intermediate

- Amazon Alexa Skill Development in Java
- AppImage creation (universal Linux packages, similar to Snap and Flatpak)
- Bitcoin and Blockchains, Lightning Network
- Chocolatey package creation (Windows packages)
- Cloud services:
  - Amazon AWS EC2, ECR, S3, RDS, ElastiCache, EBS, Lambda
  - Microsoft Azure VM, App Service, Functions, Cognitive Services, Table Storage
  - AppHarbor (PaaS)
  - mLab (MongoDB DBaaS)
  - VM hosting providers: Scaleway, Hetzner Cloud
- Consul (service registry and key-value store)
- Docker Swarm clusters
- HTML
- Inno Setup (Windows installer creator)

- Kubernetes
- Linux Server management
- Large Language Models (LLMs)
- MongoDB
- NoSQL in general
- OAuth, OpenID Connect
- PostgreSQL
- Redis
- Retrieval Augmented Generation (RAG)
- Ruby
- Snap creation (Linux packages)
- Twilio Voice and SMS

# Beginner

- Apache Batik (Java SVG library)
- Apache Thrift (binary protocol similar to Google Protocol Buffers)
- ASP.NET Web API (by far the most popular web framework for C#/.NET)
- Bitcoin J (Java library for interacting with the Bitcoin blockchain)
- Blockchain smart contracts in general
- Erlang (programming language for highly scalable distributed high-availability systems)
- Homebrew package creation (macOS packages)
- Machine Learning / Deep Learning in general
- Other databases (mainly from work on my side project goky):
  - Embedded databases for Go: BadgerDB, bbolt / BoltDB), LevelDB / goleveldb
  - Distributed key-value stores: Apache ZooKeeper, etcd, Redis
  - Distributed caches: Memcached, Hazelcast
  - Cloud: Amazon DynamoDB, Amazon S3, Azure Table Storage, Google Cloud Datastore, Alibaba Cloud Table Store
  - "NewSQL": CockroachDB
- Windows PowerShell

#### Soft skills

In no specific order:

- High attention to detail
- Precise, professional written communication
- Conveying technical information to non-technical people
- Identifying and resolving complex technical issues
- Putting quality over quantity with the ability to compromise and ship
- Teamwork, finding a middle ground among opposing opinions among peers
- Mentoring / enabling juniors and peers to be more productive by sharing my knowledge, tips and tricks

- Optimistic towards the future
- Tech enthusiast
- Seeing potential for optimization and automation, continuously reporting or implementing them

# Notable side projects

#### Active

- chromem-go
  - Embeddable vector database for Go with Chroma-like interface and zero third-party dependencies. In-memory with optional persistence.
- gokv
  - A Go package that contains an abstraction for key-value stores and multiple interface implementations (Redis, Consul, etcd, bbolt, BadgerDB, LevelDB, Memcached, DynamoDB, S3, PostgreSQL, MongoDB, CockroachDB and many more)

# Low priority or archived

- ln-paywall
  - Go middleware for setting up a paywall for an API, payable via the Lightning Network
- lightning.ws
  - A web service with an API that's payable via the Lightning Network
    / a demo deployment of ln-paywall, including a web frontend
  - Open source: GitHub
- serve
  - CLI that starts a simple temporary static file server in your current directory and prints your IP address to share with colleagues
- eme trado
  - Service for trading Bitcoin on Kraken and Coinbase via SMS
  - ASP.NET Web API, C#, running on AppHarbor PaaS, using mLab MongoDB DBaaS
- hello-netcoreapp
  - Full-blown project template / boilerplate for Open Source .NET Core console applications
- Blockchain Explorer as Amazon Alexa Skill
  - Open source: GitHub
- boltwall.com
  - Website for the "umbrella" for ln-paywall, lightning.ws and future related projects
- ApiOmat SDK Go and ApiOmat CLI
  - Go SDK and CLI for managing and interacting with ApiOmat servers
- serve
  - A simple static file server for sharing local files with colleagues

- Packages for Windows (Scoop and Chocolatey), macOS (Homebrew) and Linux (Snap)
  - \* E.g. https://snapcraft.io/serve
- Windows Store app for discovering and reading TL;DRs on tldr.io (website down / taken over)