

Golang Backend Developer

MALIK BENKIRANE

Critical and distributed systems. 3 years expertises.

Contact

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Entreprise experience

- **Jul 2021 - Sep 2021** “Full-Stack software engineer” (schoolyear.nl)
Designed anonymization routines for the events sent by the users of Schoolyear’s client (**electron/AngularJS**). Added new events to the client and the backend: stateless and serverless full development cycles (**Golang, influxDB, PostgreSQL, Lambda**). Extended API and added features. Working by peer-reviewing. Dry code that is test-driven (**TDD**).
- **May 2020 - Jul 2021** “Lead Full-Stack developer” (xenogene.es)
Created distributed production system for clinical reports (**Golang, Kubernetes, Kafka, MinIO, PostgreSQL, Python, REST, gRPC**). Biologists in the lab can configure the system to update the processes (**SvelteJS, WebSockets**). Speeding up production of the reports 16 times. Helping bioinformatics team along the research to discover new patterns and make new decision logics.
- **Sep 2018 - Jun 2021** “Lead Full-Stack developer” (Tingis Group Call Center)
Created a monolith (**Golang, PostgreSQL, Redis**) for selling insurances on the phone (**VueJS, SvelteJS**). Rewrite from scratch in 2 weeks with microservices clean architecture adding security features and scaling improvement (**Kubernetes, automated CI/CD, GCP, Bare Metal**). Implemented and updated clients interfaces. User base growing from 10 to 100 to 1000 users with about 10 rq/sec. Hand-crafted continuous integration pipelines and customized execution (**libpod, Drone.io**). Featuring online secure payments, the digital signature of documents, and compliance to European data regulations.

Education

- **Neural Network and Deep Learning MOOC**
Andrew NG, Coursera - deeplearning.ai
- **Machine Learning MOOC**
Andrew NG, Coursera - Stanford University

- *Master's student in CS Major in Language Semantics*
Sorbonne Université - Jussieu - Paris VI (Paris, France)
- *Bachelor's degree in Science Major in Computer Science*
Sorbonne Université - Jussieu - Paris VI (Paris, France)
- *Summer semester in numerical analysis*
Brown University (Boston, RI, USA)
- *Two-year intensive course in mathematics*
CPGE - Lycée Janson de Sailly (Paris, France)

Some academic projects

- *Binary search tree compression*
<https://gitlab.com/malikbenkirane/stl-ouverture-compression>
Designed, implemented and compared different algorithms for compressing binary search trees (**OCaml**, **data structures**). Evaluated search performance on the compressed structures (**investigation**).
- *Graph properties on large graphs*
https://github.com/malikbenkirane! /su6-cpa-intro_to_large_graphs
Very short demonstration (in **C**) on performing computation on large graphs.
- *AST construction with **OCaml***
<https://github.com/malikbenkirane/su6-stl-aps0>
APS0 is a sublanguage of APS and this project is about implementing AST construction and AST walkers

Books and projects / worth digging

- *The Science of **Lean** Software and **DevOps***
Accelerate Building and Scaling High Performing Technology Organizations
Nicole Forsgren, Jez Humble, and Gene Kim
- *Wild Workouts Go **DDD** Project*
<https://github.com/ThreeDotsLabs/wild-workouts-go-ddd-example>
A series of articles on software good practices inspired by DDD patterns.
Avoid making microservices with all the downsides of a monolith.
- *Yet another awesome **TDD** example*
<https://github.com/Fs02/grimoire>
100% covered lightweight query builder that good example of TDD