Miguel Angel Jose Liezun

Paris, France | liezun.js@gmail.com | +33745369206 | LinkedIn | Blog | Github

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SUMMARY

Senior Software Engineer with 7+ years of experience in building, optimizing, and scaling high-performance backend systems. Expertise in database and distributed system design, with a focus on scalability, resilience, and efficient data processing. Passionate about creating robust architectures and leveraging open-source tools to enhance data accessibility and performance.

EXPERIENCE

Senior Software Engineer

Gencove - New York, NY (Remote)
January 2023 - Present

- Througout 2024 implemented a cost tracking system built upon AWS Cost Reports, S3, CloudFormation and Athena. Afterwards every engineer got assigned tickets to inspect and decrease costs. This helped the company save 100k+ USD per-year.
- Architected cloud infrastructure for **Gencove Explorer**, a genomic data platform, optimizing access controls via **AWS IAM** and **Principal Tags**.
- Enabled Jupyter notebook management with individualized user access on **AWS ECS** + **EC2** for a highly scalable research environment.
- Optimized access proxy with **Caddy** and **JWT-based authentication** for seamless user experience and security.
- Developed data solutions on **EC2** and **AWS Batch**, empowering clients to execute custom analysis workflows.
- Established monitoring and logging systems using **AWS CloudWatch** for robust infrastructure insights.

Software Engineer

Gencove - New York, NY (Remote)
May 2021 - January 2023

- Enhanced **CLI-to-API communication** with **Pydantic models**, simplifying data schema management.
- Spearheaded **data pipeline optimizations** to cut costs by 20%, boosting throughput and performance.
- Improved infrastructure with **Terraform** to automate deployment, including regulatory-compliant EU replication.

- Developed '**Research DB**', a product consolidating cross-environment data for comprehensive insights.

Software Engineer

Palpitos / Onebittech - Argentina
November 2017 - May 2021

- Built backend services for a local government **LoraWAN parking system**, processing real-time sensor data for a live dashboard.
- Developed **POS software** using **Go** and **Electron**, including OTA updates with Snap packages.
- Designed a **sports betting pipeline** using **Go, Node.js, and Kafka**, reducing latency to sub-second levels, achieving Betradar certification.
- Led development of a **microservices-based payment solution**, supporting 100k transactions per second. Using Percona Server for MySQL with RocksDB engine.

Software Developer / Founder

ExpenseTKR - Argentina
August 2019 - September 2020

- Created **ExpenseTKR**, a cross-platform expense tracker with free/paid versions, developed using **Vue, Cordova**, with a **PHP/Percona Server for MySQL backend**.
- Used **Rancher, Kubernetes, Proxmox** for local development and **Jenkins** for CI/CD pipelines.

OPEN SOURCE CONTRIBUTIONS

- **Caddy Snake**: Developed a plugin for the **Caddy proxy** implementing **WSGI** and **ASGI** protocols, allowing Python applications to be hosted directly, similar to **NGINX UNIT**.
- **Grotsky**: Designed and implemented a toy programming language. Initially a tree-based interpreter in **Go**, later rewritten as a register-based VM in **Rust**.
- **CPython**: While building Caddy Snake, identified and reported a bug in **CPython**; filed an issue and submitted a PR that was later reworked by a core maintainer.

EDUCATION

Computer Engineering
Universidad Nacional de Tucuman • Argentina • 2018

Awarded the "Ingeniero Isidoro Marin" prize by the National Academy of Engineering for outstanding academic performance.