Erik Pellizzon

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Work Experience

Freelancer
Padua, Italy

SOFTWARE ENGINEER (REMOTE)
Nov 2023 - Present

- Working as an independent software engineer on the **backend** part of SaaS applications.
- Reversed APIs from various external websites and implemented custom clients in **Go**, to build an **aggregator** of external financial **forex data sources**.
- **Improved** the code readability of **Go microservices** that exposed public REST APIs, through a refactoring of the old codebase that increased request handling **performance** by 20% on average.
- **Integrated 20+ external payment systems** and SMS API services within the current **Go** codebase of various customers, to allow users to pay and receive notifications.

GardaWorld Security - Crisis24
Konstanz, Germany

SOFTWARE ENGINEER (REMOTE)
Sep 2022 - Nov 2023

- Worked on a SaaS platform in the **Travel Risk Management** sector, which enables employees to stay safe while traveling, using sensitive data such as their location to send personalized security alerts. Crisis24 services are used by 50% of Fortune 500 companies.
- Improved the **Ruby on Rails** application backend (**+ Go microservices**) by fixing bugs and adding new features, modifying the **Ember.js** frontend when necessary.
- Reduced by 15% the average response time of internal **Ruby** microservices & exposed **GraphQL APIs** used by third-party software, by optimizing the **Redis** caching layer for the production environment on **Google Cloud**.
- Replaced a dataset that hadn't been updated in 10 years with a **Python** project created from scratch that dynamically builds an updated country border dataset using OpenStreetMap data and the Shapely library, saving the result in a **PostgreSQL** (with PostGIS) database.

Open Source Developer

GITHUB - VOLUNTEER
May 2020 - Present

- Fixed bugs in public projects written using the **Go** programming language.
- Became **maintainer** of goproxy, a very **popular** project written in Go to setup a custom proxy server, with more than **6k stars** and thousands of users.
- **Contributed** to the development of the **Go language itself** by improving the performance of the standard library of the Go programming language, starting with Go version 1.20. You can read more about it in the Projects section.

Skills

Languages	Go, Python, C, Java
Database	SQL, PostgreSQL, Redis, Apache Cassandra, MongoDB
Backend	Distributed Systems, Microservices, Git, Docker, Google Cloud Platform, AWS

Projects

Go Programming Language
Open Source Contributor

- Made **6 proposals** for code changes and 3 of them were accepted by the project maintainers and are now part of the Go compiler code.
- One of these changes is an optimization that **increased encoder initialization performance for Base32 and Base64 by 40%** by changing memory initialization implementation.

PiSquared

- Created a Telegram bot using **Go** that asks the user a question and then uses Natural Language Processing multilingual **text similarity** to calculate the **percentage of correctness**, based on a predefined answer.
- The project was praised by the author of the machine learning library used, for the creativity of the implementation.

Public Speaker

- Participated as a **volunteer speaker** in IT & technology conferences.
- Gave an in-depth presentation on **coroutines in Go** at the **Devfest 2024** conference, organized by **Google Developer Group** Venice.

Education

Technical Institute Francesco Severi
Padova, Italy

A.S. COMPUTER SCIENCE

- Software Engineering & Programming (Java, C), Concurrent Programming (Java), Algorithms & Data Structures (Java)
- Web Development - Backend (PHP, MySQL) & Frontend (HTML, CSS, Javascript)
- Operating Systems, Computer Networks, Distributed Systems (Designing Data-Intensive Applications)

Certifications

2022	Apache Cassandra 3 Associate Developer (DataStax)
2022	MongoDB 5.0 Associate Developer
2021	Google Cloud Developer Specialization