

João Conde

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TECHNICAL SKILLS

Languages: Rust, JavaScript, Python, TypeScript, Java, C++, C, Prolog

Frameworks: ReactNative, ReactJS, VueJS, Actix Web, Flask, NodeJS

Databases: PostgreSQL, MariaDB, SQLite, MongoDB

Data Engineering: Spark, Kafka, RabbitMQ

EXPERIENCE

Freelancer

Senior Software Engineer

Porto, Portugal

Feb. 2024 – Present

Platforme

Software Engineer III

Porto, Portugal

Aug. 2022 – Jan. 2024

- Designed and implemented the end-to-end invoicing and drop-shipping solution for produced orders. Features automatic invoice, other certificates, and shipping waybill creation. Groups several orders and ships in bulk for cost-effectiveness.
- Responsible for on-boarding new software engineers and mentoring interns.
- Developed the mobile app used by factory workers to track and update production orders' statuses and send pictures for quality assurance processes.

Software Engineer II

Aug. 2021 – July 2022

- Built a physical retail white label tablet app used by store employees to help clients personalize their products. Highly customizable to allow publishing for multiple merchants with custom plugins matching their brand.
- Built an Enterprise Bus API used for communication by several micro-services, supporting different bus adapters (*e.g.*, Kafka, RabbitMQ).
- Built the shipping micro-service responsible for covering the shipping life-cycle of orders (*e.g.* create shipments, retrieve proof of delivery, send e-mail notifications, ...). Supports multiple couriers (*e.g.* UPS, DHL) while syncing with Platforme's systems.

Software Engineer I

Sep. 2020 – July 2021

- Developed the service that connects Platforme's systems to online stores, making use of different adapters to connect to different e-commerce providers (*e.g.* Salesforce, Shopify). Responsible for keeping state synced in both systems.
- Developed a platform where [Twitch](#) streamers can customize products using a browser-based app during live streams. Viewers react to customization through reaction buttons and the best ones could be purchased.
- Enabled horizontal scaling by splitting a monolithic app to microservices communicating via RabbitMQ, making it on average 5 times faster.
- Built an open-source [PNG blending Rust crate](#) with an API available in Rust, WebAssembly and Python.

Feedzai

Systems Research Engineer

Porto, Portugal

Feb. 2020 – July 2020

- Researched and developed a lightweight method for analysis of numerical features in streaming environments and concept drift detection. Resulted in the submission and acceptance of two [patents](#).
- The resulting algorithm was able to detect all streaming outliers with divergence measures above the 99th percentile.

Research Engineer

July 2019 – Sep. 2019

- Built a tool to aggregate high- and low-level documentation, improving search speeds by 4 times.

PROJECTS & CONTRIBUTIONS

- 🔗 **Appier** | *Python* - a lightweight web framework
 - Implemented a module to abstract pub/sub operations on a RabbitMQ exchange.
 - Implemented a weighted graph data structure and Dijkstra's algorithm to find the shortest path.
- 🔗 **Pconvert** | *Rust* - a server and client-side tool for fast PNG blending
 - Developed the library from scratch with both server and client-side requirements in mind.
 - Designed and implemented the multithreaded architecture.
- 🔗 **Parrot** | *Rust* - a [Discord](#) music bot
 - Part of the team of three that started the project.
 - Implemented some trivial bot commands, application error handling, and server settings and their serialization.
- 🔗 **Libdsa** | *C* - a library with generic data structures and algorithms
 - Designed modules using the PIMPL pattern.
 - Implemented common container data structures and associated algorithms.
- 🔗 **NES Emulator** | *Rust* - a Nintendo Entertainment System desktop emulator
 - Researched the inner workings of the console.
 - Implemented the main components of the system (CPU, PPU, MMU, *etc.*)
- 🔗 **CHIP-8 Emulator (browser demo)** | *Rust* - a CHIP-8 desktop and web emulator
 - Researched the inner workings of the chip.
 - Wrote the appropriate type conversions to compile the emulator to WebAssembly.

EDUCATION

- Faculty of Engineering of the University of Porto** Porto, Portugal
BSc + MSc in Informatics and Computing Engineering (GPA 16/20) *Sep. 2015 – July 2020*
 - Master's Thesis "[Lightweight Real-time Feature Monitoring](#)" (19/20)
 - Member of the competitive programming team

PATENTS & PUBLICATIONS

- WIPO patent WO2022150062A1, filed July 28, 2021, and issued July 14, 2022. "[Automated feature monitoring for data streams](#)"
- WIPO Patent WO2022150061A1, filed July 28, 2021, and issued July 14, 2022. "[Generation of divergence distributions for automated data analysis](#)"
- Conde, J. (July 24, 2020). Master Thesis "[Lightweight Real-Time Feature Monitoring](#)"
- Conde, J., Moreira, R., Torres, J., Cardoso, P., Ferreira, H., Sampaio, M., Ascensão, J., & Bizarro, P. (July 19, 2022). "[Lightweight Automated Feature Monitoring for Data Streams](#)"

EXTRACURRICULAR ACTIVITY

- ACM FEUP Student Chapter** | *Founding member of the FEUP chapter* Mar. 2020 – July 2020
 - Organized multiple biweekly talks that brought together software industry professionals, professors, academic researchers, and students to discuss varying subjects (such as the pursuit of higher education).
- IEEE UP Student Branch** | *Computer Society Member* Feb. 2018 – July 2020
 - Organized and lectured multiple programming languages workshops (*e.g.*, Java, C++).
- Summer University** | *Teaching Assistant* July 2019
 - Taught programming fundamentals to juniors showing them how to build a *Brick Breaker* clone using [Scratch](#).
- Competitive Programming** Oct. 2018 – March 2019
 - [Google Hash Code 2019](#), **9th national place.**
 - [IEEEExtreme 2018](#), **5th national place.**