Allainclair Flausino dos Santos
Software Engineer

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ABOUT ME

Backend‑focused Software Engineer with 10+ years of experience building scalable web applications and distributed systems. Specialized in Python (FastAPI, Pydantic, SQLAlchemy) and modern cloud infrastructure (AWS, Docker, PostgreSQL). Proven track record delivering high‑performance APIs at scale for companies like Pinterest, Telnyx, and Shipwell. Experienced in mentoring engineers and driving technical interviews (300+ conducted).

PROFESSIONAL EXPERIENCE (10 YRS.)

Backend software engineer   01/2025 – current (less than 1 yr.)
▦ **Telnyx** – **Chicago, IL, United States, Remote**
- Enabled our customers to monitor and manage thousands of messages daily.
- Worked on about 8 microservices, designing, developing, and maintaining about 24 HTTP endpoints.

Tech stack: `Python`, `FastAPI`, `Pydantic`, `Docker`, `PostgreSQL`, `pytest`, `Grafana`

Software engineer – Full stack   04/2023 – 07/2024 (1 yr. 5 mos.)
▦ **The New England Center for Children** – **Southborough, MA, United States, Remote**
- Designed and maintained education‑tech apps, adding and improving features to make teachers and students have modern and faster apps: improved page load by 200%.
- Worked on migrating one Java monolith app, breaking it into some Python microservices.

Tech stack: `Python`, `FastAPI`, `Quart`, `Pydantic`, `Docker`, `pytest`, `MySQL`, JavaScript, Java

Software engineer – part time   03/2024 – 07/2024 (4 mos.)
▦ **Martian** – **San Francisco, CA, United States, Remote**
- Built Large Language Models (LLM) adapters enabling seamless integration with 12+ proprietary and open‑source models. See open‑source repository.
- Developed a Sales Dashboard (front and backend) to give the Sales Team insights into our customers.

Tech stack: `Python`, `FastAPI`, `Litestar`, `HTMX`, `Pydantic`, `MongoDB`, `Docker`

Backend software engineer   09/2022 – 07/2023 (11 mos.)
▦ **Shipwell** – **Austin, TX, United States, Remote**
- Developed backend microservices integrating 3 freight load board APIs, streamlining logistics workflows across North America.

Tech stack: `Python`, `FastAPI`, `Django Pydantic`, `SQLAlchemy`, `pytest`, `PostgreSQL`, `RabbitMQ`, `Rollbar`, `Datadog`, `Redis`, `Docker`, AWS

Software engineer   08/2019 – 07/2022 (2 yrs. 11 mos.)
📌 **Pinterest** – **San Francisco, CA, United States, Remote**
- Built and maintained internal Trust & Safety tools used by 100+ moderators daily, supporting them to reduce inappropriate content.
- Designed time‑series monitoring dashboards for Ads systems, improving observability and reducing downtime.

- Conducted 340+ technical interviews for Python engineers and mentored junior developers.
- **Tech stack:** `Python`, `SQLAlchemy`, `Flask`, `JavaScript`, `React`, `MySQL`, `Jupyter`, `Kibana`

Tech Lead & Data Scientist   10/2015 – 09/2019 (4 yrs.)
⌗ Seebot – Maringá, PR, Brazil

- Assembled an entire Smart Traffic Light (STL) that can sense streets using cameras and act (open/close) autonomously. Main achievements were: led 5 software engineers, created an STL hardware and software controllers, traffic simulators for traffic optimization, and web dashboards.
- Created a traffic simulator using SUMO (Simulation of Urban MObility). My main algorithm on this simulator had 200% to 400% waiting time optimization on light to medium vehicle traffic.
- Deployed our smart traffic light in 4 real crossing roads. To achieve this, I had to: do research in the traffic optimization area by using smart traffic lights, design and develop optimization algorithms for STLs, design and create embedded distributed real-time systems for the STL with a microservice architecture.
- **Techs:** `Python`, `Gevent`, `SUMO`, `R`, `Linux`, `Systemd`

Assistant Professor   04/2019 – 10/2019 (11 mos.)
⌗ Maringá State University – **Maringá, PR, Brazil**

- Ministered the following subjects: • Algorithms and Data Structures • Relational Database • Multi and Hypermedia Systems • Algorithm analysis and Graph Theory • Object-Oriented Programming.
- **Tech stack:** `Python`, `MySQL`, `Java`, `C`

Data Scientist   06/2018 – 03/2019 (10 mos.)
⌗ EarlySec – **Maringá, PR, Brazil, Remote**

- Created security apps to advise our clients on assurance issues by using Natural Language Processing (NLP) techniques to filter, train, classify, and cluster social media messages. This way, we could alert our clients if something unusual was happening.
- **Techs:** `Python`, `Sckit-learn`, `Java`, `Elasticsearch`, `Apache Kafka`, `Spark` `C`

EDUCATION

Master's degree in Computer Science   2014 – 2016
Maringá State University – Info Department, **Maringá, PR, Brazil**
Thesis: Algorithms based on Variable Neighborhood Search (VNS) metaheuristic applied in the Bus Driver Schedule Problem.

Bachelor's degree in Computer Science   2010 – 2013
Maringá State University – Info Department, **Maringá, PR, Brazil**
Thesis: A genetic algorithm for the Feedback Arc Set Problem.

MY PROJECTS

tic.dev.br
Website that aggregates tech influencers from Brazil.
Techs: `FastHTML`, `dasyUI`

akingressos.com.br
I have created and maintained this "Event" website for the city of Maringá, PR, Brazil. It updates every 40 minutes with events in the city like music shows and others.
Techs: `FastHTML`, `MonsterUI`

▤ SCIENTIFIC PAPERS

Journal of Universal Computer Science   05/2017
    Solving a Large Real‑world Bus Driver Scheduling Problem with a Multi‑assignment based Heuristic Algorithm.

(PT‑BR) XLVIII SBPO ‑ Simpósio Brasileiro de Pesquisa Operacional   09/2016
    Algoritmos baseados na meta‑heurística VNS aplicados ao Problema de Escalonamento de Motoristas de Ônibus.

17th Intl. Conference on Enterprise Information Systems (ICEIS‑2015)   01/2015
    Combining Heuristic and Utility Function for Fair Train Crew Rostering.