Pedro Vasconcelos

ptronico@gmail.com | linkedin.com/in/pvasconcelos | github.com/ptronico

SUMMARY

- Senior Software Engineer with 15+ years of experience building high-traffic, large-scale web applications and REST APIs using Python, Django, Flask, and FastAPI.
- Proven track record delivering cloud-native, cost-efficient solutions on AWS and Azure, including serverless architectures, while ensuring robust, maintainable, and secure systems.
- Full-stack capabilities with TypeScript, JavaScript, and ReactJS, complementing deep backend expertise to deliver end-to-end solutions safely and efficiently.

EXPERIENCE

Senior Software Engineer   Jan 2025 – Present
Skyworks Solutions   *Irvine, California, United States*

- Led a team of engineers to implement 60+ ETL pipelines with Python, Azure Functions, and Databricks, processing 40B+ records for large-scale data analysis.
- Developed a Pytest-based data quality assurance regression framework that processed 700+ sample source files, ensuring 100% accuracy in ETL pipeline transformations.
- Implemented a data-agnostic processing framework in Python with Pandas and Polars, applying the Medallion Architecture to deliver scalable, cost-efficient, near real-time data pipelines.

Senior Software Engineer   Jul 2023 – Jan 2025
VExpenses   *Ribeirão Preto, São Paulo, Brazil*

- Improved multiple endpoint performances by 40-70% by identifying bottlenecks with Datadog and optimizing SQL queries, ensuring fast, reliable, and consistent system performance.
- Achieved a 30% reduction in bugs on core features by improving PHPUnity test coverage, code reviews, and QA processes, delivering more stable and reliable deployments.
- Headed a team to design, implement, and launch a vehicle refueling expense management solution, delivering a reliable, scalable product that expanded the company's portfolio and increased pricing tiers by 15% using PHP, Laravel, Python, and AWS Lambda, ECS, and RDS.
- Designed and launched a customized user feedback collection solution that enabled Customer Success and Product teams to identify critical improvement areas, boosting overall user experience and satisfaction.

Senior Software Engineer   Aug 2020 – Jul 2023
FieldLink   *São Paulo, São Paulo, Brazil*

- Modernized Python, Django, PostgreSQL, and Linux environments, improving security, performance, and maintainability while ensuring minimal downtime and long-term platform stability.
- Created a real-time mobile GPS tracking report with C# and Xamarin.Forms, reducing operational incident response times by 50% and improving field operations efficiency.
- Maintained and enhanced a mission-critical SaaS platform for Itaú bank, ensuring reliable orchestration of hundreds of daily legal hearings across dozens of cities.
- Implemented backend, frontend, and mobile features for a SaaS platform, enabling faster, more reliable communication and dashboards that accelerate team coordination.

Software Engineer   Mar 2014 – Jul 2020
3C Services   *Eusébio, Ceará, Brazil*

- Streamlined processes for managing electrical equipment and tools at an energy distribution provider by designing, developing, and deploying multiple web applications using Python, Django, Celery, and PostgreSQL.
  - **3c-pericia:** handles 3-12k monthly electric meter reports created by certified technicians, improving accuracy, speed, and reliability of data for judicial decision support.
  - **3c-sce:** coordinates calibration and maintenance of measurement equipment for legal expert reporting, ensuring regulatory compliance and reliability.
  - **3c-sge:** manages stock and distributions for thousands of new electrical meters. Tracks all equipments from the manufacturer to installation, covering all logistic steps.

* **3c-eml:** enables smart data visualization using charts and tables from various sources. Helps managers to understand electrical meters distribution over time. Tracks equipments, technicians, locations and times.

Software Engineer   Jan 2017 – Mar 2019
Blockchain Innovations   *Henderson, Nevada, United States*

- Developed web applications for Bitcoin, Ethereum and Pebblecoin cryptocurrencies, including wallet and exchange platforms, leveraging Web3, Python, Flask, MongoDB, and AngularJS.

Software Engineer   Dec 2011 – Dec 2016
HelloFlora   *Fortaleza, Ceará, Brazil*

- As a founding engineer, led the development of an electronic marketplace using Python, Django, and PostgreSQL, enabling small flower shops and gift stores to sell online to customers worldwide.

Software Engineer   Mar 2013 – Jul 2014
Federal University of Ceará   *Fortaleza, Ceará, Brazil*

- Integrated the OpenEDX MOOC platform with UFC Solar 2.0, enhancing the educational online experience and expanding platform capabilities.

Firmware Engineer   Jan 2011 – Nov 2011
DPM Engenharia   *Fortaleza, Ceará, Brazil*

- Developed Java ME firmware leveraging GPRS for a telemetric device monitoring city water pressure, reducing waste and enabling faster incident resolution.

Technical Skills

Languages: Python, PHP, TypeScript, JavaScript, SQL, C#, Dart, MQL5, Java.
Frameworks: Django, FastAPI, Starlette, Flask, Pytest, Laravel, Code Igniter, NestJS, ReactJS, Xamarin.Forms, Flutter, ReactNative.
Libraries: Asyncio, Celery, Pillow, MyPy, Pandas, Polars, LangChain, LangGraph, Boto3, NumPy, scikit-learn, XGBoost, NLTK, Seaborn.
Platforms: AWS, Azure, Heroku, Linode.
Databases: Postgres, MySql, Sqlite, Redis, MongoDB, ElasticSearch, Databricks, Firebase, Supabase, Pinecone.
Tools: Git, Docker, GitHub, BitBucket, Poetry, UV, Ruff, AzureDevOps, Jira, Slack, Teams, Mattermost, Trello, K6, Sentry, Datadog, Google Analytics.

Education

Control and Automation Engineering   Fortaleza, Ceará, Brazil
Bachelor   *2004 - 2010*