David Bensoussan

Software Engineer specialized in robotics, devops and systems

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"A true leader is one who knows the way, goes the way, and shows the way."
John C. Maxwell

I integrate new and established technologies in robotics, IoT, and cloud to deliver dependable systems for remote and on-site teams, backed by 10+ years across startups and mid-size companies.

At Bender Smart Charging, I drive the **Buildroot/C++/Rust monorepo migration**, rebuilt CI/CD to reach **95% pipeline reliability**, added **VSEM + Grafana visibility**, and authored **Python hardware-test APIs** so 70+ engineers can ship EV chargers confidently.

Earlier, as a **co-founder of Brisa Robótica**, I led six engineers to turn industrial machines into autonomous fleets with ROS data platforms, dashboards, and customer tooling.

I'm currently delivering at Bender Smart Charging while remaining open to new opportunities in **Hamburg or remotely**.

Experiences

Bender Smart Charging GmbH

July 2023 -> Now — Full time — Full remote — Hamburg, Germany

DevOps engineer for EV charging platform modernization

- **Consolidated Buildroot/C/C++/Rust/Java projects into a single monorepo**, preserving release history and reducing code management overhead by 80%.
  Git, Buildroot, Cargo, CMake
- **Hardened on-prem GitLab runners for new releases while keeping legacy Buildbot builders for old branches**, delivering **95% pass rates** and shrinking pipelines from 4h to 15m.
  GitLab CI, Buildbot, Buildroot, runners, caching
- **Enhanced pipeline observability by instrumenting VSEM with Grafana alerting**, helping engineers catch bottlenecks and flaky tests before releases slipped.
  VSEM, Grafana, PostgreSQL
- **Built a Python client API for charger hardware tests**, enabling scripted acceptance and regression suites across every board variant.
  Python, pytest, Pydantic, hardware APIs
- **Standardized legacy services on Linode Kubernetes**, giving distributed teams deterministic deployments and slashing manual ops toil.
  Linode, Kubernetes, Helm
- **Centralized binaries, firmware, and containers in VPN-backed Artifactory**, enforcing retention policies and reproducible builds.
  Artifactory, VPN

Brisa Robótica

October 2019 -> April 2023 — Full time — Recife, Brazil and Hamburg, Germany

Co-founding a 6M$ US Brazilian robotics startup with a team of 10 people from scratch

- **Defined and pivoted business and sales strategy** with cofounder during COVID-19 pandemic.
- Overcame technical challenges: **reverse-engineered 2 forklifts and a pallet-jack** and created a universal data platform.
- Created a **modular data collection framework** for autonomous robotics solutions used in 4 projects.
  ROS1,2, Fluent Bit, C++, Go, C, data collection, On-premise, AWS, Docker, Git Actions, Python, MinIO, PostgreSQL, MQTT
- Developed **4 dashboards for autonomous robotics solutions**: backend, frontend, public API and documentation.
  On-premise, AWS, API development, Flask, FastAPI, Bash, CI, CD, Docker, Git Actions, Python, PostgreSQL, ROS1,2
- Identified growth opportunities with clients and optimized KPIs with tailored data solutions, **yielding to 30% improvement**.
- Crafted 2 **websites** and produced **marketing materials**: videos and social media content.
- Wrote an article published in the AWS Robotics Blog.
- Fundraising detailed in Empresas e Negócios, one of the most important newspapers in Brazil.
- Achievements reported in SC inova, the most important newspaper in Santa Catarina, heart of the industry in Brazil.

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Synapticon

March 2015 -> October 2019 — Full time — Stuttgart, Germany

Full stack robotics for an autonomous lawnmower targeting the consumer market
Continuous integration and testing for robot and hardware

- **Engineered localization, navigation, and motor-control software** and deployed an automated testing framework for motor boards that ensure 15+ features were compliant before release.
  Python, pytest, ROS1, Redmine, cartographer, openhtf, static analysis, sphinx, TDD
- **Released 15 applications and libraries** for XMOS multicore chips, including sensor data acquisition and motor control. Refactored code to reduce memory usage by 25%.
  XC (close to C), C, I2C, SPI, TDD, UART
- **Crafted and optimized embedded Linux distros**, for real-time capabilities on robotics software stacks, achieving sub-6 sec boot times. Debugged and optimized software libraries for arm64.
  Yocto, Linux, AWS, cross compiling(arm/arm64), arm64, Bash, beaglebone, cmake, Docker, raspberrypi, real-time, systemd
- Designed CI/CD pipelines with **hardware-in-the-loop**, automated processes, QA for 4 projects, mentored interns.
  Python, pytest, On-premise, CI, CD, Docker, Git, Jenkins, Bash

Freelancing

October 2017 -> October 2018 — Part time

Devops Manager / Linux and ROS development

- Delivered pipelines and containerized applications for clients remotely, mostly devops topics, hourly and contract based.
- **Implemented CI/CD processes**, containerized 100-ish applications, providing robust development environments.
- Troubleshooted ROS software, packaged ROS applications in containers.
  ROS1, AWS, autoscaling, Docker, Hetzner, Jenkins, remote

Open Source

ROS 2 Data Collection Framework: Integrated **ROS 2 2 data pipelines for analytics**, not live monitoring. Collect, validate, and send data to create APIs and dashboards.
ROS 2, C++, Fluent Bit, C, Go, Python, Gazebo, Markdown documentation, Github actions, Docker
Gazebo world to ROS 2D Map plugin: **Convert a Gazebo world environment to a 2D map in seconds** for nav2 map server. Helps to avoid robot exploration and redoing mapping.
ROS 2, Gazebo, C++
Pre-commit hooks for ROS 2: **Enhance ROS 2 workflow** by implementing pre-commit hooks to ensure metadata is set and versions are consistent across all packages before release.
Python, Bash, ROS 2

Languages

French: Native
English: Professional proficiency
German: Conversational
Brazilian portuguese: Conversational

Education

ESIEA

Graduate school of Engineering — Master of Science
2010 - 2015 Embedded systems major, 3 years in robotics student organization.