

David Silva

Senior Software Engineer with 8+ years of experience building full-stack applications and cloud services across AWS, Azure, GCP, and Kubernetes, collaborating closely with product and business teams to deliver impactful features.

 davidssilva.pt •  david@davidssilva.pt •  [dmpasilva](https://github.com/dmpasilva) •  [dmpasilva](https://www.linkedin.com/in/dmpasilva)

Core Competencies

- **Languages & Frameworks:** TypeScript, Node.js, JavaScript, Java, Spring Boot, Python, Bash, Angular
- **Cloud & DevOps:** Kubernetes, Docker, Packer, AWS, Azure, GCP, GitHub Actions, CI/CD, Terraform, CloudFormation
- **Databases & Streaming:** PostgreSQL, MongoDB, Redis, RabbitMQ, Apache Kafka, WebSockets
- **Architecture:** Microservices, Event-Driven Systems, System Security, REST APIs

Work Experience

Senior Backend Engineer

Lifebit Biotech Ltd. | September 2022 – Present

- Develop automated cloud provisioning engines across AWS, Azure, and Kubernetes, enabling non-technical researchers to instantly launch complex, secure analytics environments without manual IT setup.
- Engineered dynamic IaC and security modules using Terraform, CloudFormation, and Typescript to automatically configure VPC networks, IAM roles, credentials, and secrets for customer deployments.
- Built custom image pipelines using Packer, Docker, and Bash to launch containerized interactive workspaces (Jupyter, RStudio, VS Code, Spark EMR) on dynamically provisioned Cloud Virtual Machines.
- Authored automated GitHub Actions CI/CD workflows to streamline backend service deployments and integrate business logic into cloud environments.
- Provide specialized infrastructure debugging and support for enterprise clients, troubleshooting complex cloud configuration, network, and live environment incidents.

Project Manager / Tech Lead

Satcom International AG | June 2020 – March 2022

- Architected end-to-end ERP platform encompassing core business modules (Sales, Billing, Asset Tracking, and HR/Employee Management), establishing system boundary patterns, database schemas, and API contracts.
- Led engineering execution as hands-on Tech Lead for an 8-person team, balancing active code reviews and technical stack selection with sprint planning, capacity estimation, and delivery timelines.
- Bridged technical and executive communications, serving as the primary technical contact for enterprise clients, executive leadership, and legal teams to translate business requirements into technical specs.
- Mentored and upskilled developers, establishing engineering best practices, CI/CD code review gates, and architecture documentation standards to maintain long-term code quality.

Full-Stack Developer

Satcom International AG | May 2019 – June 2020

- Engineered and maintained core full-stack features for a distributed real-time IoT fleet tracking ecosystem, ensuring high performance, service uptime, and system reliability.
- Architected real-time telemetry pipelines, ingesting raw TCP packets from IoT vehicle devices, streaming events internally via Apache Kafka, and pushing updates to the Angular frontend using WebSockets.
- Engineered and maintained backend microservices with Java and Spring Boot, building REST APIs, device management modules, and data ingestion services.
- Managed cloud-native infrastructure in GCP, containerizing Spring services with Docker and orchestrating deployments, scaling, and database query optimizations across Kubernetes clusters.

Front-End Developer

Satcom International AG | January 2018 – May 2019

- Designed and developed frontend architecture for LOXY 4.0, a real-time fleet management and asset tracking platform, using Angular (TypeScript).
- Built real-time telemetry mapping dashboards powered by WebSockets, allowing users to monitor fleet movements live with low latency.
- Created an in-house Angular component library to ensure UI consistency and speed up development workflows.

Junior Researcher

Institute of Electronics and Informatics Engineering of Aveiro | June 2016 – July 2017

- Developed DICOM Validator, a web-based platform for evaluating PACS compliance with medical imaging standards, directly contributing to 2 peer-reviewed academic publications.
- Engineered browser-side DICOM anonymization using Emscripten to compile C++ binaries into WebAssembly, ensuring zero sensitive patient data left the client before validation.
- Architected full-stack features with an Angular (TypeScript) frontend and Java backend, integrating directly with a custom Gitea instance to manage rule sets.
- Built a custom Gitea visual editor plugin for community-driven rule management, implementing unified session authentication across Gitea and the Java backend.

Conferences

- **Hacking embedded devices: From Black Box to UID 0**

Zezaadas and David Silva

- BSides Lisbon 2023
- OWASP Porto #05 Jupiter

Education

Master's Degree

Computers and Telematics Engineering | 2011 — 2018

Universidade de Aveiro

Publications

- **A community-driven validation service for standard medical imaging objects**

Jorge Miguel Silva, Tiago Marques Godinho, David Silva, Carlos Costa

January 2019 - Computer Standards & Interfaces Volume 61:121-128

- **Web Validation Service for Ensuring Adherence to the DICOM Standard**

Jorge Miguel Silva, Tiago Marques Godinho, David Silva, Carlos Costa

January 2017 - Studies in Health Technology and Informatics 235:38-42

Last Updated: 2026-08-04