

Mario Alberto Hernandez Salamanca

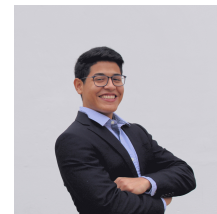
Software Engineer | Systems Builder | Integration & Validation

Großenstr. 24, 28195 Bremen, Germany

Mobile: (+49 1607070092) Email: mario.ah.salamanca@gmail.com

Website: mario-ah-salamanca.com LinkedIn: [LinkedIn profile](#)

Nationality: Salvadoran Work authorization: EU Blue Card, Germany



Professional Summary

Software Engineer and Systems Builder with professional experience in aerospace and industrial engineering software, validation, system integration, automation, and data tooling. Develops and tests C, C++, Python, C#, and SQL software across Windows and Linux environments, with hands-on exposure to hardware integration test benches, communication protocols, engineering workflows, and internal tooling. Builds practical websites, AI-assisted workflows, documentation systems, prototypes, and product-oriented project structures with a focus on clarity, reliability, and maintainable execution.

Core Positioning

I help turn messy ideas into clear websites, workflows, prototypes, and digital systems, built with the discipline of dependable software engineering.

Technical Skills

Programming: C, C++, Python, C#, SQL

Web and Product Tools: Next.js, React, TypeScript, Tailwind CSS, Angular, GitHub Actions, GitHub Pages, Formspree, Liquid

Data and Automation: SQLite, Pandas, ETL pipelines, parser development, regular expressions, CLI tools, reporting workflows

Testing and Integration: pytest, software validation, integration testing, system integration, hardware integration test benches, mock simulation layers

Protocols and Platforms: CAN, AFDX, RS-422, HTTP, Linux, Microsoft Windows, Docker

Workflow Tools: Git, GitLab, Bitbucket, Jira, Agile workflows, documentation systems, prompt-based workflow design, schema-backed review processes

Professional Experience

Akkodis Germany AS&D

05/2023 – Present

Software Engineer

- Developed C, C++, and Python software components for aerospace hardware integration test benches across Windows and Linux environments.
- Built verification tools and mock simulation layers to support bench validation and system integration workflows.
- Supported integration of a new system bench by providing technical troubleshooting and software support across the system integration lifecycle.
- Integrated communication support using HTTP, CAN, AFDX, and RS-422 in test-bench and system communication contexts.
- Designed a SQLite-backed canonical data model to normalize legacy file-based configuration and signal data for engineering workflows.
- Implemented ETL and parser workflows using Python, Pandas, regular expressions, and SQL to process disjointed engineering data sources.
- Built CLI tooling for project initialization, batch import, and compliance/report generation for engineering users.
- Authored pytest validation coverage for unit logic, database integrity, and integration workflows.
- Coordinated development tasks and change control through Git, GitLab, Jira, and Agile workflows.

Modis GmbH

12/2022 – 03/2023

Software Developer

- Developed C++11 and C# software for industrial attachment-device interfaces and operating modes over CAN.
- Implemented a C++ communication layer for real-time data exchange over the CAN bus.
- Built an Angular human-machine interface for filling-machine workflows.
- Implemented a C# integration layer connecting system resources and artifacts to a NoSQL database.
- Managed development work with Jira, Bitbucket, Atlassian Cloud tooling, and Agile software development practices.

Selected Projects

AI CV & Cover Letter Application Factory

- Designed a repository-based AI workflow for generating targeted European CVs and cover letters from structured profile data and role descriptions, using prompt phases, schema contracts, evidence rules, review gates, and application package organization to keep outputs truthful, ATS-friendly, and maintainable.
- Prepared the architecture for future OpenAI API automation with structured outputs, file search/vector stores,

function calling, and agent orchestration.

Personal Brand Website

- Built and deployed a personal brand website using Next.js App Router, React, TypeScript, Tailwind CSS, static export, GitHub Actions, GitHub Pages, and Formspree-based lead capture.
- Structured the site to present software engineering services, projects, future digital products, and a roadmap toward Supabase-backed client and resource features.

Kader Club Product App

- Developed a product-oriented web app workflow for Kader Club, including MVP scope definition, roadmap, product requirements, architecture documentation, AI-agent development rules, issue-based execution, onboarding screens, catalog preview, and collection binder UI foundations.

Shopify Theme / Storefront Work

- Worked with Shopify theme structure and Liquid-based storefront customization using Shopify Skeleton Theme foundations, including sections, blocks, snippets, templates, assets, and theme configuration.

Education

Constructor University (former Jacobs University Bremen)

Bachelor of Science, Computer Science, 2022

Languages

Spanish: Native English: Fluent German: Spoken working proficiency