

Anthony Okala

IT Consultant & Software Engineer

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Professional Summary

With over 10 years of expertise in automation, software development, machine learning, and safety-critical systems. Specializing in Java, Python, JavaScript, TypeScript, PHP, and modern frameworks such as React, Django, Spring Boot, and Laravel. Expert in UiPath, KNIME Analytics, and Power Automate. Fluent in English, German, and French. Currently serving as IT Consultant at DB Regio AG, I specialize in developing automation solutions using Python and UiPath, achieving 80% reduction in manual effort with a goal to reach 99% automation. I'm also the Co-Founder & CEO of ASOK Solutions Engineering SARL. My expertise spans across RPA development, full-stack web development, software development, machine learning, and system architecture, with 9+ years of experience working with automotive clients like Volkswagen AG and delivering solutions for safety-critical systems and DB Regio AG by delivering automation solutions.

Professional Experience

IT Consultant - Vehicle Technology & Planning
DB Regio AG | August 2021 - August 2023
• Delivered end-to-end solutions for vehicle technology and planning, including data integration, system architecture, and deployment, achieving 80% reduction in manual effort with a goal to reach 99% automation. I'm also the Co-Founder & CEO of ASOK Solutions Engineering SARL. My expertise spans across RPA development, full-stack web development, software development, machine learning, and system architecture, with 9+ years of experience working with automotive clients like Volkswagen AG and delivering solutions for safety-critical systems and DB Regio AG by delivering automation solutions.

Software Developer

Achelios GmbH | August 2021 - August 2023
• Developed and deployed full-stack web applications using Java, C++, Spring Boot, JUnit, Jenkins, Maven, Git, JIRA, and Docker. Implemented CI/CD pipelines and automated testing frameworks. Utilized cloud services like AWS and Azure for deployment and scaling. Collaborated with cross-functional teams to deliver high-quality software solutions.

RPA Developer

DB Regio AG | August 2021 - June 2022
• Developed and deployed RPA solutions using UiPath, Power Automate, and Python. Automated repetitive tasks, reducing manual effort and increasing efficiency. Collaborated with business stakeholders to identify automation opportunities and implement solutions.

Working Student - Software Developer

Eves-IT | June 2018 - February 2021
• Developed and deployed web applications using Java, Spring Boot, Spring MVC, JavaFX, Oracle SQL, JUnit, JIRA, and Bamboo. Implemented CI/CD pipelines and automated testing frameworks. Utilized cloud services like AWS and Azure for deployment and scaling. Collaborated with cross-functional teams to deliver high-quality software solutions.

Freelance Work

OKAS FLD - Drive & Delivery Services

Business Website Project | 2025
Modern business website for OKAS FLD (drive & delivery services). Built with Next.js (App Router), TypeScript, and Tailwind CSS. Features a responsive design, SEO optimization, and a user-friendly interface. Deployed from GitHub to Render.com with a custom domain via AWS Route 53.

ASOK-SE Enterprise Web Application

ASOK-SE SARL | 2024
Comprehensive web application aimed at enhancing enterprise advertisement. Integrated multiple technologies including React, Node.js, Express, MongoDB, and Docker. Implemented a robust security layer and a scalable architecture to provide a seamless user experience for businesses to promote their products and services.

Local Jenkins Container in VS Code Dev Container

Private Project | 2024
Professional CI/CD development environment with Jenkins configured for Django projects using VS Code Dev Containers. This setup provides a fully configured Jenkins environment with Docker support.

Friends Project | 2023 - 2024

Pentak SARI International - Enterprise Web Application

PONTAK OYAK International | 2021 - 2022

Web application using Laravel/Lumen to manage business operations for a friend's company.

- PHP • Laravel • Lumen • PHP-Blade • HTML • CSS • JavaScript

Own Initiative | 2020 - 2021

Laravel/Lumen-based application to compare online offers, allowing users to make informed purchasing.

- make informed purchasing decisions

Initiative with Friends | 2019 - 2020

Laravel/Lumen-based system to streamline restaurant operations, including inventory tracking and order

- **Boilerplate and remote-based system and storage infrastructure and operations, including inventory tracking and management.**

Initiative with T. Henius | 2010 - 2019

Express.js web application to support a friend's hairstyle business by enabling appointment booking and

- Developed a responsive front-end application for a support portal for a university using a company's design approach
 • Customer management: booking and customer management
- Environment: Maven • Spring framework • MySQL • npm • ngrok • Git • nodemon • babel-node.js

Own Initiative | 2016 - 2017

Web application for the CSK student group at TU Clausthal, facilitating event management and communication

- Design, development, and deployment of applications, Node.js, Express, and GraphQL
- Cloud infrastructure management, AWS, Azure, and Google Cloud
- Database management and optimization, MySQL, PostgreSQL, and MongoDB
- Security and compliance, OWASP, GDPR, and HIPAA
- Testing and quality assurance, Jest, Cypress, and Selenium
- DevOps and CI/CD, Docker, Kubernetes, and Jenkins
- Collaboration and communication, Slack, Jira, and Confluence
- Leadership and mentorship, coaching, and team management
- Continuous learning and professional development, conferences, courses, and certifications

OWN Initiative | 2014 - Present

Conducted private tutoring sessions to help students master programming languages and databases, focusing

- **Practical problem-solving and real-world application:** Hands-on exercises and case studies, such as SQL and NoSQL (Neo4j, ArangoDB).

Master's Thesis: End-to-End Learning System for Autonomous Drone Navigation

Technical University of Clausthal | 2016 - 2024

This project aimed to revolutionize autonomous drone flight by implementing a cutting-edge end-to-end (E2E)

- Supervisors: Prof. Dr. Andreas Rausch, Dr. Adina Aniculaeșel
Research areas: Computer Vision, Robotics, Artificial Intelligence, Machine Learning, and
 Python • TensorFlow • Keras • ARSim • Pandas • Scikit-learn • Git • GitLab • Machine Learning • Autonomous Systems
 • AI • Sentimental analysis • Deep learning • Efficient technologies in complex environments
 • Autonomous navigation capabilities, integrating advanced spatial awareness, core navigation, and expanded

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This project focused on analyzing safety-critical systems, with a particular emphasis on drones. As inherently

- superficially. Prof. Dr. Andreas Rastbach, Dr. Anna Articuladeser
said: "By analyzing the development and deployment of safety-critical systems, linking behaviors in these systems
Literature Review, Safety Standards, Markdown, LaTeX, Excel, Research, Documentation, Standardization
practices associated with the development and safety of these civil aircraft systems
standards, and tailored development processes."

Method

This project centers on Model-Driven Software Development (MDSD), a cutting-edge approach to achieving

- By modeling the target hardware in a process model (e.g., Verilog or VHDL) for synthesis, we can build a high-level abstraction of a target hardware. Model-Driven Development (MDD) for Automotives Architecture efficiently provides a means to specify and generate a target hardware. The test is integrated into supports Model-Driven Architecture (MDA), a pivotal aspect of MDD, by generating tailored software

This project involved the development of a support book

Supervisors: Benjamin Fischer, Yong Wang, Prof. Dr. Andreas Rausch

- **Backend** is a **server-side** program which have implemented **business logic** and **data** management, **efficiency** and **scalability**.

different of building a simple and use (tell a business user) behavior, friendly and efficient solution consumption in linkers, manage other users and their consumption data, and securely log out.

Notable Project: Electric Vehicle Simulator

Technical University of Clausthal | 2013 - 2018

This project focuses on developing an electric vehicle simulator to address key challenges such as range

limitations and energy consumption. The simulator enables users to simulate a trip and receive an evaluation of their driving performance upon completion.

Notable Project: Parking Management System

Technical University of Clausthal | 2013 - 2018

This project addresses the growing challenge of finding parking in crowded urban areas while contributing to

the city's sustainability goals. The system utilizes a combination of IoT sensors and a central database to create a real-time parking management system that allows users to easily monitor the availability of parking spaces.

Notable Project: Graph Database Comparison

Technical University of Clausthal | 2013 - 2018

This project involved a comprehensive performance comparison between two leading NoSQL graph databases:

Neo4j and ArangoDB. The study evaluated their strengths and weaknesses in terms of performance, scalability, and ease of use, providing valuable insights for organizations considering graph-based data management.

Research Assistant - Software Development and Automation

Technical University of Clausthal | April 2021 - 2022

Collaborated with a research team to develop a ROS2-based drone navigation system, improving its performance and reliability. The project involved extensive testing and optimization of the system's components.

Research Assistant

Technical University of Clausthal | 2014 - 2018

Assisted in the development of a software tool for automating the testing of embedded systems. The tool was designed to streamline the testing process, reducing manual effort and increasing the efficiency of the development cycle.

Education

Master of Science in Computer Science

Technical University of Clausthal | 2018 - 2024

Thesis: End-to-End Learning System for Autonomous Drone Navigation

Tools: Python, Pandas, TensorFlow, Keras, AirSim, Git, GitLab

Technical University of Clausthal | 2013 - 2018

Key Achievement: Developed an autonomous drone navigation system reaching level-4 navigation features.

Thesis: Software Architecture Management in Automotive Sector

Completed Coursework: Automation Engineering, Embedded Systems Modeling

Tools: Java, Eclipse, UML, GMF/EMF

Personal Growth: Advanced proficiency in Python, Pandas, Keras, and Scikit-learn through academic projects.

Key Achievement: Designed and implemented a custom software architecture tool supporting Model-Driven

Location: Cameroon

Architecture for safety-critical systems.

Additional Achievement: Learned German language after graduation and obtained the highest language level

certificate. Completed Coursework: Software Engineering, Distributed Systems, Database, Embedded Systems, Logic and

Technical Skills

Verification, Software Ergonomic

Personal Growth: Proficiency in Java, UML, and GMF/EMF modeling for tool development.

Python (95%)

Java (90%)

JavaScript (85%)

TypeScript (80%)

PHP (85%)

C++ (85%)

VBA Excel (90%)

Frameworks & Tools

UIPath (95%)

Django (90%)

Spring Boot (85%)

Next.js (80%)

React Native (80%)

Laravel (85%)

TensorFlow (75%)

Databases

PostgreSQL (90%)

MySQL (85%)

Oracle SQL (85%)

SQLite (85%)

Neo4j (75%)

ArangoDB (75%)

DevOps & Cloud

Git (95%)
Docker (85%)
Jenkins (80%)
Maven (90%)
AWS (70%)
CI/CD (80%)

Featured Projects

RPA Automation Solutions

Developed comprehensive automation solutions using Python and UiPath, achieving 80% reduction in manual effort for data processing and visualization tasks.

OKAS PLD Business Website

Modern Business Website built with Next.js, TypeScript, and Tailwind CSS. Features responsive design, multi-language support, and professional UI/UX.

Vivantes-Humanitas Web Application

Django-based web application for Vivantes Humanitas e.V., enabling efficient management of volunteer registrations and activity tracking.

Pentak Sarl International Website

Professional business website for Pentak Sarl International, featuring modern design, responsive layout, and comprehensive company information.

Autonomous Drone Navigation

End-to-End Learning System for autonomous drone navigation using Python, TensorFlow, and AirSim simulation, achieving Level 4 navigation capabilities.

Software Architecture Tool

Custom software architecture tool supporting Model-Driven Architecture for automotive sector, improving development efficiency in safety-critical systems.

Cross-Platform Mobile Apps

Full-stack, cross-platform mobile applications using TypeScript, React Native Expo, with Java Spring Boot, Python Django, and PHP Laravel backends.