

# 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 AWS. The application provides 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.

## Vivantes Humanitas Web Application

Friend's Project | 2023 - 2024

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

- Designed and implemented a Django-based web application for managing volunteer registrations and activity tracking.

## Pentak SAREL International - Enterprise Web Application

Pentak SAREL International | 2021 - 2022

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

- Developed a Laravel-based application to manage business operations for a friend's company.

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

## Offer Comparison Web Application

Own Initiative | 2020 - 2021

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

- Designed and implemented a Laravel/Lumen-based application for comparing online offers to make informed purchasing decisions.

PHP • Laravel • Lumen • HTML • CSS • JavaScript • Git • GitHub • SQLite

## Restaurant Management Application

Initiative with Friends | 2019 - 2020

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

- Developed a Laravel-based system for restaurant management, including inventory tracking and order management.

PHP • PHP-Blade • Framework • Git • GitHub • Zoom

## Hairstyle Business Web Application

Initiative with Friends | 2018 - 2019

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

- Developed an Express.js web application for a hairstyle business, providing appointment booking and customer management.

Express.js • Framework • MySQL • npm • ngrok • Git • nodemon • babel-node.js

## CSK Student Association Web Application

Own Initiative | 2016 - 2017

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

- Designed and developed a web application for the CSK student group, managing event management and communication among members.

Angular • PHP • HTML • CSS • Ionic Cordova • Git

## Private Tutoring in Computer Science

Own Initiative | 2014 - Present

Conducted private tutoring sessions to help students master programming languages and databases, focusing on practical problem-solving and real-world application.

- Conducted private tutoring sessions to help students master programming languages and databases, focusing on practical problem-solving and real-world application.

Java • C++ • PHP • Python • SQL • And Q • Neo4j • ArangoDB

## Academic Work

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

Technical University of Clausthal | 2018 - 2024

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

- Designed and implemented an end-to-end learning system for autonomous drone navigation, integrating advanced spatial awareness, core navigation, and expanded autonomous navigation capabilities.

Supervisors: Prof. Dr. Andreas Rausch, Dr. Adina Aniculaeșel

Python • TensorFlow • Keras • ARSim • Pandas • Scikit-learn • Qt • ROSLab • Machine Learning • Autonomous Systems

Supervisors: Prof. Dr. Andreas Rausch, Dr. Adina Aniculaeșel

- Designed and implemented a safety-critical system for autonomous drone navigation, integrating advanced spatial awareness, core navigation, and expanded autonomous navigation capabilities.

## Bachelor's Thesis: Software Architecture Management in the Automotive Sector

Technical University of Clausthal | 2013 - 2018

This project centers on Model-Driven Software Development (MDSD), a cutting-edge approach to achieving high-quality software development.

- Designed and implemented a Model-Driven Software Development (MDSD) system for automotive software development, integrating advanced spatial awareness, core navigation, and expanded autonomous navigation capabilities.

## Bachelor's Project: Smart Beer Bar System

Technical University of Clausthal | 2013 - 2018

This project involved the development of a smart beer bar management system designed to enhance user experience and streamline operations.

- Designed and implemented a smart beer bar management system for a friend's company, providing a user-friendly and efficient solution.

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

PHP • MySQL • Eclipse • Qt Creator • Ubuntu • UML • Cross-Platform

## 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 "Smart City" initiative. The system utilizes a real-time database to monitor the availability of parking spaces, allowing users to easily find and reserve spots.

## 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 various use cases, providing valuable insights into their suitability for different applications.

## Research Assistant - Software Development and Automation

Technical University of Clausthal | April 2021 - 2022

Collaborated with a research team to develop a robotic system for automated material handling. The project involved designing and implementing a control system for a robotic arm, optimizing its performance and safety.

## Research Assistant

Technical University of Clausthal | 2014 - 2018

Assisted in the development of a software tool for simulating and analyzing the performance of a mechanical system. The tool was used to optimize the design of a machine component, reducing its weight and improving its efficiency.

## 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

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

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### 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.