

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

Professional Experience

Professional Work

IT Consultant - Vehicle Technology & Planning

DB Regio AG | August 2023 - Present
Working with automotive clients like Volkswagen AG and delivering solutions for vehicle technology and planning. 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

Software Developer

Achelios GmbH | August 2021 - August 2023
Developed and maintained software applications for various clients. Expert in Java, C++, Spring Boot, JUnit, Jenkins, Maven, Git, JIRA, and Docker. Specialized in developing complex systems and integrating with external APIs.

RPA Developer

DB Regio AG | August 2021 - June 2022
Developed and maintained RPA solutions for various clients. Expert in Python, VBA, Excel, UiPath, RPA, Agile, SCRUM, and Jenkins. Specialized in automating repetitive tasks and improving efficiency.

Working Student - Software Developer

Eves-IT | June 2018 - February 2021
Developed and maintained software applications for various clients. Expert in Java, C++, Spring Boot, Spring MVC, JavaFX, Oracle SQL, JUnit, JIRA, Bamboo, and Docker. Specialized in developing complex systems and integrating with external APIs.

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, responsive, SEO optimized, and 100% (DE/EN/FR). Deployed from GitHub to Render.com with a custom domain via AWS Route 53.

ASOK-SE - Enterprise Web Application

Comprehensive web application aimed at enhancing enterprise advertisement. Integrated multiple technologies 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.

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.

Pentak SARRL International - Enterprise Web Application

Pentak SARRL International | 2021 - 2022

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

- Developed a full-stack application for a friend's company, managing business operations using 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 developed a web application for comparing online offers, enabling users to make informed purchasing decisions using PHP • 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.

- Collaborated with friends to develop a restaurant management system, including inventory tracking and order management using PHP • 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 a web application for a friend's hairstyle business, enabling appointment booking and customer management using Express.js • Node.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, facilitating event management and communication among members using 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, helping students master programming languages like Java, C++, Python, and databases such as SQL and NoSQL (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) learning system.

- Designed and implemented a deep learning architecture for autonomous drone navigation, integrating computer vision, reinforcement learning, and control systems using Python • TensorFlow • Keras • AirSim • Pandas • Scikit-learn • Git • GitLab • Machine Learning • Autonomous Systems

autonomous navigation capabilities, integrating advanced spatial awareness, core navigation, and expanded

Master's Project: Safeguarding Safety-Critical Systems

Technical University of Clausthal | 2018 - 2024

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

- Conducted a thorough analysis of safety-critical systems, focusing on drone navigation and control systems, identifying potential risks and implementing mitigation strategies using Literature Review • Safety Standards • Markdown • LaTeX • Excel • Research • Documentation

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

- Explored and implemented Model-Driven Software Development (MDSD) for automotive software development, focusing on UML and code generation using Eclipse • EMF • JEMP • Java • UML • Model-Driven Development • Automotive • Architecture

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

- Developed a smart beer bar management system, enhancing user experience and streamlining operations using C++ • Qt • SQLite • 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

- Designed and implemented an electric vehicle simulator, addressing challenges like range estimation and energy management using Eclipse • Java • UML • OpenDS • Java SWT • Java Swing • Simulation

receive an evaluation for their energy 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

Supervisors: Meng Zhang

- [illegible]

Notable Project: Graph Database Comparison

Technical University of Clausthal | 2013 - 2018

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

Supervisors: Gerrit Burmester, B.Sc.

Analyses The primary outcome was the time to first seizure. Secondary outcomes were time to second seizure, time to third seizure, time to fourth seizure, time to fifth seizure, time to sixth seizure, time to seventh seizure, time to eighth seizure, time to ninth seizure, time to tenth seizure, time to eleventh seizure, time to twelfth seizure, time to thirteenth seizure, time to fourteenth seizure, time to fifteenth seizure, time to sixteenth seizure, time to seventeenth seizure, time to eighteenth seizure, time to nineteenth seizure, time to twentieth seizure, time to twenty-first seizure, time to twenty-second seizure, time to twenty-third seizure, time to twenty-fourth seizure, time to twenty-fifth seizure, time to twenty-sixth seizure, time to twenty-seventh seizure, time to twenty-eighth seizure, time to twenty-ninth seizure, time to thirtieth seizure, time to thirty-first seizure, time to thirty-second seizure, time to thirty-third seizure, time to thirty-fourth seizure, time to thirty-fifth seizure, time to thirty-sixth seizure, time to thirty-seventh seizure, time to thirty-eighth seizure, time to thirty-ninth seizure, time to fortieth seizure, time to forty-first seizure, time to forty-second seizure, time to forty-third seizure, time to forty-fourth seizure, time to forty-fifth seizure, time to forty-sixth seizure, time to forty-seventh seizure, time to forty-eighth seizure, time to forty-ninth seizure, time to fiftieth seizure, time to fifty-first seizure, time to fifty-second seizure, time to fifty-third seizure, time to fifty-fourth seizure, time to fifty-fifth seizure, time to fifty-sixth seizure, time to fifty-seventh seizure, time to fifty-eighth seizure, time to fifty-ninth seizure, time to sixtieth seizure, time to sixty-first seizure, time to sixty-second seizure, time to sixty-third seizure, time to sixty-fourth seizure, time to sixty-fifth seizure, time to sixty-sixth seizure, time to sixty-seventh seizure, time to sixty-eighth seizure, time to sixty-ninth seizure, time to seventieth seizure, time to seventy-first seizure, time to seventy-second seizure, time to seventy-third seizure, time to seventy-fourth seizure, time to seventy-fifth seizure, time to seventy-sixth seizure, time to seventy-seventh seizure, time to seventy-eighth seizure, time to seventy-ninth seizure, time to eightieth seizure, time to eighty-first seizure, time to eighty-second seizure, time to eighty-third seizure, time to eighty-fourth seizure, time to eighty-fifth seizure, time to eighty-sixth seizure, time to eighty-seventh seizure, time to eighty-eighth seizure, time to eighty-ninth seizure, time to ninetieth seizure, time to ninety-first seizure, time to ninety-second seizure, time to ninety-third seizure, time to ninety-fourth seizure, time to ninety-fifth seizure, time to ninety-sixth seizure, time to ninety-seventh seizure, time to ninety-eighth seizure, time to ninety-ninth seizure, time to one hundred seizure.

Neo4j • ArangoDB • Python • NoSQL • Graph Databases • Performance Testing

relative efficiency of different approaches for sample size calculations in different scenarios and scalability

Research Assistant - Software Development and Automation
 Technical University of Cluj-Napoca | April 2021 - 2023

Technical University of Clausthal | April 2021 - 2022

- **Bollinger Bands** • **Technical Analysis** • **Python** • **ROS2** • **AirSim** • **Drone Systems** • **Research**

Python • ROS2 • AirSim • Drone Systems • Research

systemic factors in experimental setups

Research Assistant

Research Assistant

- Java • VBA • Excel • MVC • JUnit • SVN • SharePoint • Research • Eclipse

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

Bachelor of Science in Computer Science

Key Achievement: Developed an autonomous

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

High School Diploma

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

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

Technical Skills

Verification: Software Economics

Technical Skills

Personal Growth: Proficient in Java

Programming Languages

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

- Python
- Java
- JavaScript
- TypeScript
- C#
- C++
- VB
- Excel

Frameworks & Tools

- GifPath
- Grango
- Spring Boot
- Next.js
- React Native
- Firebase
- TensorFlow

Databases

- PostgreSQL
- MySQL
- Oracle
- SQLite
- NCDB
- ArangoDB

DevOps & Cloud

Git
Docker
 Jenkins
 Maven
 AWS
 CI/CD

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.