AKASH YADAV

Software Engineer | C# / .NET, IoT & Automation

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📍 Weißenburger Straße 20, 33607 Bielefeld, Germany 📅 April 10, 1991 🏳 Indian

SUMMARY

Experienced .NET specialist with over 5 years in software engineering, IoT, and automation. I focus on modernizing complex systems through scalable architectures and the strategic use of AI tools for process optimization.

PREFERRED WORK LOCATION
Remote, Hybrid, or willing to relocate (across Germany)

TECHNICAL SKILLS

Skills

| OOP | Desktop App | Web App | IoT Protocols | Database Design | DevOps | Version Control | Agile |

| Test-Driven Development | Domain-Driven Design | Design Patterns | Event-Driven Design |

| AI-Driven Development | Front-End | PLM |

Frameworks

| C# / .NET Core | ASP.NET Core | MVC | MVVM | WPF | MAUI | Blazor | SQL | Azure DevOps |

| RabbitMQ | Entity Framework | Insomnia | Swagger | HTML | Docker | OpenCV | Git | C++ |

| Python |

PROFESSIONAL EXPERIENCE

03/2025 - Currently

Bielefeld, Germany

Software Engineer | Intelligent Transportation Systems

Peter Berghaus GmbH

- **Backend Development:** Designed and implemented available services in a distributed system using .NET 8/9 for seamless collection and processing of extensive industrial telemetry datasets.
- **Sensor Monitoring:** Developed a real-time application for monitoring sensors, cameras, and batteries.
- **Height Control Systems:** Created a height control system for tunnel entrances using sensor fusion (light sensor & camera) with real-time display on an LED screen.
- **Legacy Modernization:** Collaborated with team to backend modules with a new architecture and restructured PostgreSQL database schemas.
- **AI Leveraging:** Leveraged AI for efficient analysis of legacy codebases and automated test suite generation.
- **Architecture:** MVC, Domain-Driven Design (DDD), Event-Driven Design (EDD), SOLID principles, Microservices.
- **Languages & Frameworks**: *C# / .NET, ASP.NET Core, Entity Framework (EF) Core.*
- **Communication & Messaging**: *RESTful APIs, MQTT for IoT protocols, RabbitMQ.*
- **Data & Infrastructure**: *PostgreSQL, Docker for containerization, Git (version control), Jira (project management).*
- **Tooling & Testing**: *Insomnia (API testing), xUnit (unit testing).*

PROFESSIONAL EXPERIENCE

02/2021 - 02/2025

Wolfsburg, Germany

C#/.NET Software Developer | Design Automation
Capgemini Engineering

- **Vehicle Concept Platform App**: Created WPF applications for the VW vehicle development ecosystem and PLM.
- **Architecture**: Modular design and APIs for subsystem integration.
- **Automation**: Process optimization using CATIA API, Entity Framework, and parsers.
- **Agile Methodology**: Worked in a SCRUM environment with a focus on Test-Driven Development (TDD).
- **Tech Stack**: *C#/.NET, WPF, MVVM, Clean Architecture, Domain Driven Design, ASP.NET Core, Azure DevOps, Git, Entity Framework.*

04/2019 - 01/2021

TU Kaiserslautern, Germany

Research Assistant & Master's Thesis
Institute for Wireless Communication and Navigation (WiCoN)

- **Drone Development for Landscape Analysis:** Developed drone systems focusing on sensor integration for accurate environmental data collection.
- **Image Analysis with AI:** Semantic segmentation of aerial imagery.
- **Tech Stack:** *Python, TensorFlow, TFLite, Jetson Nano, OpenCV.*

11/2018 - 03/2019

Leonberg, Germany

Intern
Robert Bosch GmbH

- **ADAS Test Automation**: Developed automated tests in **Python** and **Matlab** for synchronization and validation of **Radar & Camera Systems**.
- **Data Analysis**: Enhanced detection performance through targeted **Image** & **Signal Processing** using **OpenCV** and **Vector CANape**.

04/2018 - 10/2018

Kaiserslautern, Germany

Intern
Robotics Research Lab

- **Control of Autonomous Road Rollers:** Developed and validated trajectory planning, control, and sensor fusion in simulations.
- **Tech Stack:** *C++, Control Framework: Finroc, Simulation: Unreal.*

EDUCATION

10/2016 - 09/2020

Kaiserslautern, Germany

Master of Science in Commercial Vehicle Engineering
Technical University of Kaiserslautern

- Focus: Computer Science in Automotive, AI in Automotive

07/2014 - 07/2016

Indore, India

Master of Engineering in CAD/CAM/CAE
Shri G.S Institute of Technology and Science

- Focus: Product Development and Automation

07/2009 - 07/2013

Bhopal, India

Bachelor of Engineering in Mechanical Engineering
Rajiv Gandhi Proudyogiki Vishwavidyalaya

LANGUAGES

English
Fluent ●●●●○

German
Conversational ●●●○○

CERTIFICATIONS

Microsoft Azure Fundamentals (AZ-900)