Curriculum Vitae

Akshat Bhat

akshatbhat07@gmail.com | +49 (0)1775678648 | Marsstraße 15, 97421 Schweinfurt

Nationality: Indian | D.O.B: 10.04.2002 | LinkedIn: akshatbhat

PROFESSIONAL SUMMARY

Motivated 6th-semester Mechatronics student with hands-on experience in embedded systems, robotics and control engineering. Skilled in hardware-software integration and passionate about automation, machine learning, and real-time systems. Currently seeking an internship to apply and improve technical skills in a practical engineering environment.

EDUCATION

10/2022 – Present Schweinfurt, Germany

Bachelor of Engineering in Mechatronics

Technical University of Applied Sciences Würzburg-Schweinfurt (THWS) A 6th semester mechatronics student with an average grade of 2.1. Specialization:

- Machine Learning and Design of Experiments.
- · Automation and Robotics.

11/2021 – 07/2022 Berlin, Germany

Study College

Berlin International College

Completed the required technical course for university admissions (T-Kurs)

with an average grade of 2.0.

04/2018 – 10/2020 Mumbai, India

Higher Secondary College

Nirmala Memorial Foundation College

Attained a <u>92.3 percentile</u> in the National Level IIT-JEE MAINS exam, demonstrating a thorough understanding of Physics, Chemistry, and

Mathematics.

PROJECTS

03/2025 - 05/2025

Embedded Sensor-Based Descent Control System for Marine Exploration Industrial Project at THWS

Arduino Mega2560 | Sensor Integration | RS232 Communication

- Developed embedded firmware (C/C++) for an MCU, integrating ultrasonic (UART), turbidity (analog), and IMU (I2C) sensors.
- Implemented and tested tilt compensation, real-time sensor correction, and filtering algorithms to maintain accuracy in wave disturbed and varying ocean conditions.
- Designed digital and analog output interfaces, including PWM based voltage mapping (0–5V) and logic validation.
- Designed RS232 ASCII-based protocol for reliable communication between the MCU and the Industrial Computer.

11/2024 - 02/2025

Ball on Beam Dynamics Modeling (MATLAB, Control Theory)

Control System Lab (THWS)

- Constructed a full symbolic model of a dynamic mechanical system using MATLAB Simulink
- Simulated responses under various control inputs and disturbance forces.
- Outputs used for potential control design (e.g., PID, LQR) and system identification.

10/2024 - 11/2024

Industrial Robot Programming and Simulation

Robotics Lab (THWS)

- Worked with the Kuka Robot (KR6R900), utilizing the Teach Pendant to program and execute basic tasks.
- Simulating the processes through **RoboDK** to enhance efficiency and understanding.

03/2024 - 07/2024

Biomedical Engineering Course (THWS)

Gained knowledge in biomedical engineering principles, medical device design, bio-signal generation, and interdisciplinary methods for solving clinical and biological challenges.

EXPERIENCE

10/2024 - 03/2025

I-Point (THWS)

Schweinfurt, Germany

Student Assistant

- Supported international students with academic and administrative issues
- Strengthened cross-cultural communication skills

08/2024

ZF Friedrichshafen AG

Schweinfurt, Germany

Vacation Job

- Ensured daily production quota by operating and inspecting CNC-machined engine parts
- Gained exposure to lean manufacturing and quality control standards

08/2022 – 09/2022 Berlin, Germany

Dance GmbH

Mechanic

- Assembled and inspected E-bikes and mopeds, ensuring functionality and adherence to quality standards
- Gained a deeper understanding of electrical, mechanical, and structural components used in light electric vehicles

* TECHNICAL SKILLS

Programming:

Python, C++, MATLAB

Modelling and Design:

Simulink, Autodesk Inventor, 3D-CAD,

Cornerstone

Simulation Tools:

RoboDk, WinFACTBoris, Siemens TIA Portals,

Cisco Packet Tracer

Software Tools:

Microsoft Office (Excel, Word, PowerPoint)

S LANGUAGES

GermanEnglishHindiKannadaB2 (Business fluent)IELTS 8-BandNativeMother Tongue

4-) INTERESTS

- Learning about the biased A.I. problem
- Table tennis, Volleyball, Cricket, Workout
- Music Production on Maschine MK2

SOFT SKILLS

- Collaborative team member
- Systematic approach to problem solving
- Eager to learn and apply new skills

- Reliable and punctual
- Proactive and self-directed
- Excellent communication skills

06.07.2025, Schweinfurt