Vibhor Sharma

M.Sc in CS | +49-15143380481 | vibhor.sharma24.vs@gmail.com |
sharmavibhor.github.io | linkedin.com/sharma-vibhor15

SUMMARY

Software Engineer with 4+ years of experience in software development and applied research, specializing in building scalable AI-driven solutions. Strong communicator with experience collaborating across multicultural, cross-functional teams, translating complex technical concepts into actionable outcomes.

TECHNICAL PROFICIENCY

Skills: Java, Python, Kotlin, C++, SQL, JavaScript, React, Spring Boot, REST APIs, Data Structures, Algorithm design, Code Architecture, Unit Test, Code Review
Developer Tools: Git, Docker, CI/CD, Jira, Jenkins, Android Studio, VS Code, Linux
Certifications: Hugging Face AI Agent Course, AWS Developer Associate(ongoing)

EDUCATION

M.Sc Computer Science | University of Bonn   April 2022 – June 2025

EXPERIENCE

Research Assistant | University of Bonn   Feb 2024 – June 2025
- Co-designed the VCI's capture stage structure and fabricated custom parts using laser cutting for assembly.
- Optimized the image capture pipeline with CUDA kernels, boosting frame processing for real-time performance.
- Developed and trained a segmentation model used for 3D reconstruction tasks, improving reconstruction accuracy and efficiency.
- Integrated camera systems, hardware and software modules to enhance the stage's performance for 3D reconstruction tasks.
- *Tech Stack:* Python, C++, CUDA, Ximea API

Mobile Developer | Murmuras Gmbh, Bonn   Nov 2022 – May 2023
- Developed a mobile app to track users' eating schedules, using barcode scanning to read product packaging and OpenFoodFacts API to retrieve nutritional information.
- Implemented OCR-based product recognition and optimized data workflows for accurate information retrieval.
- Processed and visualized user data in dashboards, providing actionable insights to scientists for nutritional studies.
- *Tech Stack:* Java, Kotlin, Databases

Software Developer | Samsung Research Institute, India   July 2019 – Feb 2022
- Led end-to-end development of Samsung Reminder & Calendar applications used by 500M+ of devices worldwide, improving usability and reliability.
- Independently contributed to Samsung Health APIs, enhancing data retrieval and visualization features for Wear OS integration.
- Developed Spring Boot–based microservices to support backend APIs, ensuring scalable and low-latency performance.
- Integrated cloud-based synchronization, ensuring seamless data consistency across smartphones, tablets, and Wear OS smartwatches.
- Implemented unit tests and CI/CD pipelines, reducing post-release bugs by 20% and increasing overall reliability.
- *Tech Stack:* Java, Kotlin, Spring Boot, Cloud, REST API

Intern | Samsung Research Institute, India   Jan 2019 – May 2019
- Developed a wearable system using ultrasonic sensors to recognize hand gestures and convert them into audible keywords, addressing communication challenges for speech-impaired users.
- Designed and trained a gesture recognition model, achieving 95% accuracy in detecting essential hand movements.
- Enabled real-time translation of gestures into speech, significantly improving accessibility and user independence.
- *Tech Stack:* Python, TensorFlow, Arduino, Embedded Systems

PROJECTS

Master's Thesis | *Python, PyTorch, Blender*   Oct 2024 – Apr 2025
- Developed a 3D hair reconstruction model based on <u>MonoHair</u>, targeting improved efficiency and reduced dependence on multi-view input.
- Created a custom synthetic dataset in Blender to simulate <u>VCI's capture stage</u> setup, ensuring real-world compatibility during training and testing.
- Applied Ml techniques and integrated methods from recent research papers to enhance the reconstruction pipeline, and also achieved 40% faster runtimes.

<u>Personal Website</u> | *JavaScript, React, TailwindCSS*   September 2025
- Designed and deployed a responsive portfolio website to showcase academic and professional projects.
- Implemented modular React components with TailwindCSS for fast, accessible UI, and deployed via GitHub Pages.

UniSport DB | *SQL, Oracle Database*   Jan 2018 – June 2018
- Designed and built an Oracle SQL database to manage university sports teams and events, addressing the need for organized and accessible scheduling information.
- Developed SQL queries and integrated them with a web interface to allow users to view upcoming events and check team openings in real time.

ACHIVEMENTS AND INTERESTS

- Chess: 2300 rated DWZ player; won several tournaments and captained state teams | 2010-24
- Badminton: Got silver medal at Winter-Dies Academicus Turnier | 2023
- Soft Skills: Attended various workshops to improve communication, leadership and conflict resolution skills | 2025