

# Vibhor Sharma

M.Sc in CS, University of Bonn | +49-15143380481 | [vibhor.sharma24.vs@gmail.com](mailto:vibhor.sharma24.vs@gmail.com) |

<https://www.linkedin.com/in/sharma-vibhor15/>

## SUMMARY

AI-focused Computer Science graduate with 4 years of professional experience in software development and research, including hands-on contributions to AI/ML projects and cloud-integrated solutions. Adept in collaborating with cross-functional teams, optimizing systems for performance, and driving innovation through prototyping and experimentation.

## TECHNICAL PROFICIENCY

**Skills:** Java, Python, PyTorch, TensorFlow, C/C++, Kotlin, SQL, Data Structures, Algorithm design, APIs, App Development, Code Architecture, Code Review

**Developer Tools:** Git, Docker, CI/CD, GitHub Copilot, Jira, Jenkins, Android Studio, VS Code, OpenAI, Linux

**Certifications:** Hugging Face AI Agent Course, AWS Developer Associate(ongoing)

## 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.

### Software Developer | Samsung Research Institute, India

July 2019 – Feb 2022

- Led end-to-end development of the Reminder and Calendar mobile applications, improving user experience and ensuring seamless functionality.
- Assumed leadership of Reminder Widget & Edge Modules at Samsung HQ, Korea, delivering enhancements like category selection and UI improvements.
- Implemented unit tests, resulting in a 20% reduction in post-release bugs and increasing reliability.
- Collaborated on integrating cloud-based backup and synchronization features, ensuring seamless cross-device accessibility and reliability for users.

### 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.

## PROJECTS

### Master's Thesis | *Python, PyTorch, Blender*

Oct 2024 – Apr 2025

- Developed a 3D hair reconstruction model based on MonoHair, targeting improved efficiency and reduced dependence on multi-view input.
- Created a custom synthetic dataset in Blender to simulate VCI's capture stage 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.

### 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