

Date: December 20, 2024

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### Letter of Recommendation for Prakash Kondibhau Naikade

To Whom It May Concern,

I am pleased to recommend Mr. Prakash Kondibhau Naikade, who worked under my supervision as a Junior Researcher at the August-Wilhelm Scheer Institute for Digital Products and Processes gGmbH. Prakash made significant contributions to the MediHopps, iperMö, and VuLCAn research projects, focusing on computer vision, computer graphics, and machine/deep learning. His technical acumen and problem-solving abilities, especially in innovative and analytical contexts, make him an outstanding candidate for an interdisciplinary research engineer positions in fields such as Computer Vision, Large Language Models (LLM), and Deep/Machine Learning.

Prakash's contributions spanned a wide range of technical and research tasks. In the MediHopps project, he implemented advanced techniques for human action recognition and body pose estimation. He conducted an in-depth analysis of motion data for human activity recognition (HAR), tested various deep learning approaches, and delivered detailed performance evaluations along with a trained HAR model (stgcn++) for rehabilitation exercise data. His work on iperMö focused on extracting and visualizing features from complex hierarchical data structures, significantly improving the project's codebase and functionality. For VuLCAn, Prakash conducted in-depth research on health data acquisition from IoT and smart devices, exploring open-source APIs and machine learning models to extract digital health biomarkers. This work showcased his ability to integrate interdisciplinary knowledge into practical solutions.

In addition to his technical contributions, Prakash demonstrated diligence in conducting thorough literature reviews on topics such as human action recognition in Industry 4.0, Generative-AI for personalized products, digital twins for logistics, stress detection in work environments, VR applications in sports and rehabilitation, and mitigating motion sickness in VR. His reviews were comprehensive and well-structured, providing actionable insights and aligning with broader project goals. Notably, his efforts in researching and drafting proposals and papers on using human pose estimation, Generative-AI and VR for rehabilitation and mental health were invaluable and exemplified his ability to translate theoretical knowledge into impactful solutions.

Prakash's interests in 3D Reconstruction, Motion Capture, Generative AI, XR, Digital Twins and HCI align perfectly with his work at the institute and the diverse research projects we undertake. Prakash is highly collaborative and thrives in interdisciplinary environments. He is proactive in sharing insights, open to feedback, and always ensures his deliverables align with project expectations. Despite being a junior researcher, he consistently demonstrated exceptional enthusiasm for tackling new topics, offering innovative ideas, and overcoming technical challenges. His ability to work independently, coupled with a readiness to seek clarification when needed, ensures that his contributions are precise and aligned with objectives.

Prakash's passion for advancing sustainable practices through technology transfer and his entrepreneurial spirit position him as a valuable asset to any research team. His strong analytical mind, technical expertise, and collaborative nature make him well-equipped to contribute meaningfully to cutting-edge research in computer vision, generative AI, machine learning, and beyond. I am confident that Prakash's dedication, curiosity, and skill set will enable him to make a lasting impact in any academic or research environment.

If you require any further information, please do not hesitate to contact me.

Sincerely,

Nanna Dahlem

