ARYAN SAINI

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RESEARCH VISION AND INTERESTS

My vision is to develop interactive systems that empower individuals to harness their body's full potential. I aim to design wearable technological augmentations that seamlessly integrate into daily life, enhancing physical capabilities and facilitating a deeper connection between the body and technology. These systems will not only augment physical abilities but also provide intuitive and personalized experiences, fostering a symbiotic relationship between humans and technology.

Human-Computer Interaction (Bodily Augmentations, Embodied Interaction, Soft Exoskeletons, Pneumatic Interfaces, Virtual Reality, and Haptics)

EDUCATION

Exertion Games Lab, Monash University   *February 2022 - August 2025 (Projected)*
Ph.D. in Human-Computer Interaction
Advisors: Prof. Floyd Mueller and Prof. Elise van den Hoven
Thesis: **Designing Pneumatic Bodily Extensions for Promoting Embodiment across Everyday Life Experiences**

IIIT-Delhi, New Delhi, India   *August 2015 - May 2019*
Bachelor of Technology (Electronics and Communications Engineering)
Undergraduate Thesis: **Designing Wearable Trinkets and Toolkits**

RESEARCH EXPERIENCE

Weave Lab, IIIT-Delhi, New Delhi   Jan 2020 - May 2021
Research Assistant   *Advisor:* **Prof. Aman Parnami**

Microsoft Research, India   June 2019 - Dec 2019
Research Intern   *Advisor:* **Dr. Manohar Swaminathan**

SELECTED PUBLICATIONS

[1] **Saini, A.**, Sridhar, S., .., van den Hoven, E., Mueller, F. F. Inflated Exertion: Designing a Bodily Extension that Embodies Physical Activity. **TEI 2025 WiP (Under review).** [PDF]

[2] **Saini, A.**, Sridhar, S., .., van den Hoven, E., Mueller, F. F. Pneunocchio: Understanding the Design of a Nose-based Bodily Extension that Suggests Lying. **CHI 2025 (Under review).** [PDF] [Video]

[3] **Saini, A.**, Sridhar, S., .., van den Hoven, E., Mueller, F. F. 2024. PneuMa: Designing Pneumatic Bodily Extensions for Supporting Movement in Everyday Life. **TEI 2024**. [PDF] [Video]

[4] **Saini, A.**, Bhatia, A., Kalra, I., Mukherjee, M., Parnami, A. 2023. DUMask: A Discrete and Unobtrusive Mask-Based Interface for Facial Gestures. **AHs 2023.** [PDF]

[5] Arora, J., **Saini, A.**, Mehra, N., Jain, V., Shrey, S., Parnami, A. 2019. VirtualBricks: Exploring a Scalable, Modular toolkit for Enabling Physical Manipulation in VR. **CHI 2019**. [PDF]

TECHNICAL SKILLS

Programming Languages	C, Embedded C, Python, JavaScript and Verilog
Tools	OnShape, Blender, AutoCAD, Git, MATLAB, Wireshark, LaTeX, Xilinx, LTSpice
Hardware Skills	3D Design and Printing, PCB Fabrication, Communication Protocols
Multimedia and Design	Adobe Premiere Pro, Photoshop, Illustrator, After Effects, Sketch, Audacity and Fritzing

RELEVANT COURSEWORK

Wearable Applications, Research, Devices, and Interactions (WARDI), Robotics, Embedded Logic Design, Computer Architecture, Computer Networks, Radar Systems