

# DHRUV VERMA

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 [Dhruv Verma - Profile](#)

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## RESEARCH INTERESTS

HCI, Ubiquitous Computing, Sensing, Mobile Health, Interactions, Neural Interfaces

## EDUCATION

**University of Toronto** | Toronto, Canada 2021 - Present  
Ph.D. in Computer Science - Advisor: [Alex Mariakakis](#)

**Indraprastha Institute of Information Technology Delhi** | New Delhi, India 2017 - 2021  
B.Tech in Computer Science & Engineering

## PEER-REVIEWED PUBLICATIONS

4. Vimal Mollyn, Karan Ahuja, **Dhruv Verma**, Chris Harrison, and Mayank Goel. *Under Submission at Proceedings of the ACM CHI Conference on Human Factors in Computing (CHI'22)*.
3. **Dhruv Verma**, Sejal Bhalla, Dhruv Sahnan, Jainendra Shukla, and Aman Parnami. 2021. ExpressEar: Sensing Fine-Grained Facial Expressions with Earables. *In Proceedings of the ACM on Interactive Mobile Wearable & Ubiquitous Technologies (IMWUT'21)*. <https://doi.org/10.1145/3478085>
2. **Dhruv Verma**, Kshitij Gulati, Vasu Goel, and Rajiv Ratn Shah. 2020. Fashionist: Personalising Outfit Recommendation for Cold-Start Scenarios. *In Proceedings on the 28th ACM International Conference on Multimedia (MM'20)*. <https://doi.org/10.1145/3394171.3414446>
1. **Dhruv Verma**, Kshitij Gulati, and Rajiv Ratn Shah. 2020. Addressing the Cold-Start Problem in Outfit Recommendation Using Visual Preference Modelling. *In Proceedings of the IEEE International Conference on Multimedia Big Data (BigMM'20)*. <https://doi.org/10.1109/BigMM50055.2020.00043>

## RESEARCH EXPERIENCE

**Graduate Research Assistant | University of Toronto** Sept. 2021 - Present

- Computational Health and Interaction (CHAI) Lab, Advised by Dr. [Alex Mariakakis](#)
- Leading a project on performing robust and scalable gait analysis in everyday living environments.

## Visiting Student Researcher | Carnegie Mellon University

June 2020 -  
May 2021

- Smart Sensing for Humans (SMASH) Lab, Advised by Dr. Mayank Goel
- Worked on a novel privacy-preserving activity recognition system. Work submitted to ACM CHI 2022.

## Undergraduate Research Assistant | IIIT Delhi

Dec. 2018 -  
May 2021

- Weave Lab & HMI Lab, Advised by Dr. Aman Parnami & Dr. Jainendra Shukla
- Created a novel facial expression recognition system leveraging motion sensing on wireless earbuds. Work accepted to ACM UbiComp 2021
- Built a novel framework for integrating human affect & cognitive states in context-aware applications.

## SKILLS

Programming Languages	Python, Java, C++, SQL
Frameworks and Tools	Keras, Scikit-learn, Pandas, NumPy, Matplotlib, Plotly, Librosa, Google API, Twitter API, Android Studio, Arduino, Processing, PsychoPy, LaTeX
Design Skills	Wireframing, Task Analysis, Storyboarding, Graphic Design (Adobe Photoshop, Illustrator, After Effects)

## AWARDS & HONORS

Mitacs Globalink Research Internship Award Summer 2020

## ACADEMIC SERVICE

Feature Editor, ACM XRDS (formerly Crossroads) Magazine	2021 - Present
Student Volunteer, ACM UbiComp/ISWC	2020, 2021
Student Volunteer, ACM UIST	2020

## TEACHING EXPERIENCE

Teaching Assistant, University of Toronto   Introduction to Image Understanding	Fall 2021
Teaching Assistant, IIIT Delhi   Privacy and Security in Online Social Media	Winter 2021
Teaching Assistant, IIIT Delhi   Prototyping Interactive Systems	Fall 2019

## REFERENCES

Alex Mariakakis (Assistant Professor, University of Toronto)  
Aman Parnami (Assistant Professor, IIIT Delhi)  
Jainendra Shukla (Assistant Professor, IIIT Delhi)  
Mayank Goel (Assistant Professor, Carnegie Mellon University)

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