

I am a fourth-year Ph.D. Candidate from the department of CSE @ IIIT-Delhi, co-advised by Prof. Pushpendra Singh (IIIT-Delhi) & Prof. Mohan Kumar (RIT, NY, USA). My research combines AI/ML, sensing, ubiquitous computing, and HCI to design context-sensitive technologies for proactive health and wellbeing in global majority contexts. Through my research, I aim to bridge the gap between algorithmic innovation and real-world care practices.

EDUCATION

- **Indraprastha Institute of Information Technology** Delhi, India
Ph.D. Candidate, CSE; Thesis: HCAI for Collective Care; CGPA: (8.36/10)
Jan '22 – present
- **Northeastern University** Boston, MA, United States
M.S. in Computer Systems Engineering - IoT; CGPA: (3.71/4.0)
Aug '17 – Aug '19
- **SASTRA University** Thanjavur, India
B.Tech. in Electronics and Instrumentation Engineering; CGPA: (7.30/10.0)
July '12 – Apr '16

AWARDS

- **DST Chanakya Fellowship:** Recipient of the NM-ICPS DST Chanakya Fellowship (*Aug 24 - May 25*)
- **MLSS 2024 Travel Bursary:** Received travel grant of 100,000 JPY to attend MLSS 2024, at OIST, Japan
- **ACM SIGCHI Travel Grant:** Received travel grant to attend ACM SIGCHI Symposium for HCI and Friends

PUBLICATION

- IIIT-Delhi (*T - Thesis, A - Auxiliary*) Jan '22 - Present
- **Papers (T):** CSCW '25, CHI '25 EA
 - **Short Papers/Posters (T):** HCI and Friends 2022, RISE '23
 - **Workshop Papers (T):** HCIXB @ CHI '25, PhysioCHI @ CHI '24, LLMCHI @ CHI '24
 - **Short Papers/Posters (A):** SIGCSE TS '24., MLSS '24, Okinawa, Japan, COMPASS '24, Delhi, India

EXPERIENCE

- **IIIT-D** Delhi, India
PhD Candidate
Jan 2022 - Present
 - **A Demonstration of the Collective Care framework - HCAI Research Study:** Ongoing study to validate the Collective Care framework through a pilot deployment supporting care realities in India. The results and findings are targeted for IMWUT (Ubicomp '26).
 - **Modelling Collective Care - ML Modelling:** Developing a finetuned open-source LLM to support the collective care context in contextualization, routing, provenance, and verification. Targeted for ICML '26.
 - **JEEVHITAA (A HCAI System to support Collective Care) - HCAI System Design:** An end-to-end HCAI system for operationalizing collective care supporting shared responsibility, trust, and engagement. The system development and evaluation will be submitted to ACM MobiSys '26.
 - **The Collective Care framework - HCI Research Study:** Developed an HCAI-based Collective Care framework to guide technology design for Global South contexts like India. Under review at CHI '26.
 - **Unpacking Health Informatics for Proactive Collective Care - HCI Research Study:** Conducted a study on how urban Indians perceive PHI metrics for proactive care. A key finding on PHI sharing led to further exploration on how, when, and why users share health data, evaluated with a mid-fi prototype. The results and findings are under review at IMWUT, (Ubicomp '26).
 - **Demystifying Mental Health Reports- HCAI Research Study:** Study on using locally fine-tuned open LLMs to extract context-specific health history from medical records such as discharge summaries. The results and findings of the experiments are published at CHI '25 LBW.
 - **TV as an Interactive Engagement Medium (TIES) - HCAI Research Study:** Conducted a study on using TV as a privacy-aware care medium for older adults in urban India. Developed a video prototype as a probe and evaluated its feasibility. Published at CSCW '25.

- **IIT-D** Delhi, India
Jan '22 - Dec '23
Teaching Assistantship - Assisting faculty on teaching and auxiliary research
 - **Head TA - Computer Networks:** Monsoon '25
 - **Head TA - Software Development Using Open Source:** Monsoon '23
 - **Head TA - Distributed Systems Concepts and Design:** Winter '23
 - **Head TA - Introduction to Programming:** Monsoon '22
 - **Personal TA for special needs student - Introduction to Programming:** Monsoon '22
 - **TA - Analysis and Design of Algorithms:** Winter '22
- **Unanu** Chennai, India
Apr '21 - Dec '21
Lead Programmer Analyst - Seasonal
 - **Automated Data Dashboard Design — System Design, SQL, powerBI, Azure dataflow:** Built and deployed a data pipeline, dataflow, and PowerBI dashboard for Daimler ASIA's Engine Subassembly, displaying logistics, shortage, storage, and production metrics.
- **Saras Inc.** Fremont, California, United States
Dec '19 - Dec '21
Programmer Analyst
 - **Health portal APIs — python, Pandas, Scikit-Learn, GCP:** Designed, developed, and deployed multi-task, multi-class classification consumer-facing APIs using the GCP API framework.
 - **API Usage dashboard — python, Pandas, Scikit-Learn, javascript, GCP:** Created a usage dashboard for the user portal managers that helps with traffic monitoring and smart resource management.
- **Bose Corporation** Boston, Massachusetts, United States
Jan '19 - June '19
Product Security Engineer Co-op
 - **Embed Check — python, C++, Jenkins, shell:** Secured product builds by creating an automation test suite for the CI/CD pipeline to determine and eliminate network and embedded software vulnerabilities in home entertainment smart sound systems.
 - **Embed Check Upgrade — python, C++, Jenkins, shell:** Designed a proactive analysis feature through adaptive learning of network vulnerabilities to implement in the pipeline.
 - **Vulnerability Testing — python, C++, shell:** Saved recall costs on hundreds of thousands of smart sound systems by evaluating its timing attack-prone model to mitigate issues and helped by obtaining secure code fixes.
- **Ansrsource India Pvt. Ltd.** Bangalore, India
May '16 - June '17
Academic Author - Digital Media
 - **VILT and ILT Course Development - Camtasia, audacity, LMS, adobe suite, web frameworks:** Designed, developed, & deployed e-learning content for IIMB, McGraw-Hill, Pearson, Fortuna Pix, Cengage, ASU.
 - **Content Workflow - System/Process Design:** Designed and initiated a content workflow framework, beating the performance of an automated workflow by 100% while negating unaccounted errors.
 - **Device Adaptive e-Books - LMS, adobe suite, web frameworks :** Designed and developed e-Books and adaptive pdf for various clients using adobe suite and a few proprietary web frameworks.

VOLUNTEERING AND REVIEWING

- **Volunteering:** Assistant to General Chairs @ ACM COMPASS 2024, Program and Speaker Session Volunteer @ ACM SIGCHI Symposium for HCI and Friends
- **Reviewing:** CHI (2023, 2024, 2025), TEI (2024, 2025), IMX (2024), IMWUT (2024), DIS (2024), C&C (2024, 2025), CSCW (2024, 2025), SIGCSE TS (2024), SIGCSE TS Virtual (2024), ITiCSE (2024, 2025)
- **Program Committees:** TEI WiP (2026), C&C Papers (2024), ITiCSE Papers (2025), ITiCSE Posters (2024), SIGCSE TS Virtual (2024), SIGCSE TS Posters (2024)

SKILLS & COMPETENCIES

- **Languages:** Python, Java, Javascript, C, C++, Spec C, Embedded C
- **Technologies:** pytorch, tensorflow, Scikit-learn, Numpy, Pandas, LLM training, LoRA, Flutter, wandb
- **AI/ML/DL Methods:** Self-supervised Learning, Supervised Learning, Semi-supervised Learning, LLM training/fine-tuning, LoRA, Domain Adaptation
- **Platforms and Techniques:** Raspberry Pi, Nvidia, Arm, Health Sensing (Physiological Signal Processing for model training and real-time inference)