Shyama Sastha
Krishnamoorthy Srinivasan
PhD Candidate

Email : shyamas@iiitd.ac.in
Mobile : +91 9965067206
LinkedIn   Webpage

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.

- **IIIT-D** — Delhi, India
  Teaching Assistantship - Assisting faculty on teaching and auxiliary research — Jan '22 - Dec '23
  - **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
  Lead Programmer Analyst - Seasonal — Apr '21 - Dec '21
  - **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
  Programmer Analyst — Dec '19 - Dec '21
  - **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
  Product Security Engineer Co-op — Jan '19 - June '19
  - **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
  Academic Author - Digital Media — May '16 - June '17
  - **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

- **Vounteering**: 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/finetuning, LoRA, Domain Adaptaion
- **Platforms and Techniques**: Raspberry Pi, Nvidia, Arm, Health Sensing (Physiological Signal Processing for model training and real-time inference)