

Peya Mowar

School of Computer Science

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EDUCATION

- Aug 25 – Present **Carnegie Mellon University**, Pittsburgh, PA
PhD, Robotics
Advisors: [Prof. Jeffrey P. Bigham](#), [Prof. Aaron Steinfeld](#)
- Aug 23 – Jul 25 **Carnegie Mellon University**, Pittsburgh, PA
MS, Robotics
Thesis: [Towards Automating Accessibility in Digital Authoring Workflows](#)
- Aug 17 – Jul 21 **Delhi Technological University (DTU)**, Delhi, India
B.Tech., Information Technology

SELECTED PUBLICATIONS

1. **Peya Mowar**, Aaron Steinfeld, and Jeffrey P Bigham. We Write Our Research Papers in WYSI-WYM. Why Do We Tag Our PDFs in WYSIWYG? In *The 27th International ACM SIGACCESS Conference on Computers and Accessibility*, pages 1–5, 2025
2. **Peya Mowar**, Yi-Hao Peng, Jason Wu, Aaron Steinfeld, and Jeffrey P Bigham. [CodeA1ly: Making AI Coding Assistants Useful for Accessible Web Development](#). In *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems*, pages 1–15, 2025
3. **Peya Mowar**, Meghna Gupta, and Mohit Jain. [Breaking the News Barrier: Towards Understanding News Consumption Practices among BVI Individuals in India](#). In *The 26th International ACM SIGACCESS Conference on Computers and Accessibility*, pages 1–11, 2024
4. **Peya Mowar**, Yi-Hao Peng, Aaron Steinfeld, and Jeffrey P Bigham. [Tab to Autocomplete: The Effects of AI Coding Assistants on Web Accessibility](#). In *The 26th International ACM SIGACCESS Conference on Computers and Accessibility*, pages 1–6, 2024
5. Yuvanshu Agarwal and **Peya Mowar**. [Shifted Reality: Navigating Altered Visual Inputs with Multimodal LLMs](#). In *VizWiz Grand Challenge (CVPR Workshop)*, 2024.
6. **Peya Mowar**. [Accessibility in AI-Assisted Web Development](#). In *Proceedings of the 21st International Web for All Conference*, pages 123–125, 2024
7. **Peya Mowar**, Tanuja Ganu, and Saikat Guha. [Towards Optimizing OCR for Accessibility](#). In *AVA: Accessibility, Vision, and Autonomy Meet (CVPR Workshop)*, 2022.

RESEARCH EXPERIENCE

- Nov 21 – Jan 23 **Microsoft Research India**
Research Fellow, Technology and Empowerment (TEM)
Advisors: [Dr. Saikat Guha](#), [Dr. Mohit Jain](#)
Examined news consumption behavior of blind participants and developed a document segmentation system for generating accessible e-papers through iterative prototyping.
- Jan 21 – Aug 21 **Trinity College Dublin**
Research Intern, School of Statistics and Computer Science
Advisor: [Prof. Khurshid Ahmad](#)
Studied the impact of investor sentiment on financial markets during elections using vector auto-regressive analysis, with sentiment derived from news articles in Hindi language.

ENGINEERING EXPERIENCE

- Jan 23 – Jun 23 **Amazon Web Services Ireland**
Software Development Engineer, ElastiCache and MemoryDB
Automated snoozing of auto-update cluster scaling campaigns for suspended customers to reduce ops load by 31%.
- Aug 21 – Oct 21 **Morgan Stanley**
Technology Analyst, Institutional Securities Technology
Underwent an intensive 12-week training covering OS, C++ (taught by [Bjarne Stroustrup](#)), Java, C#, Databases, Distributed Systems and UI/UX Patterns.
- May 20 – Aug 20 **Morgan Stanley**
Technology Analyst Intern, Institutional Securities Technology
Transformed and loaded securities data in proprietary databases with 60% drop in latency and traceable lineage.

HONORS, AWARDS, & SCHOLARSHIPS

- 2024 CIFAR Deep Learning + Reinforcement Learning Summer School Fee Waiver.
- 2024 Google Scholarship for W4A Doctoral Consortium.
- 2022 Microsoft Global Hackathon Award in the ‘Hack for Next Billion Users’ track.
- 2020 Ranked 1st in DTU (among 2360 students) with a GPA of 10.00 in the sixth semester.
- 2019 Media Coverage in Times of India for ‘Divya Drishti’ Hackathon Project.
- 2015 Letter of appreciation for being in the top 1% students from the HRD Minister of India.

GRADUATE COURSEWORK

Computer Vision, Mathematical Fundamentals, Machine Learning, Designing Human-Centered Software, Generative AI, Multimodal Foundation Models, HCI Process and Theory, Talking to Robots

COMMUNITY SERVICES

University Services

- 2024 Graduate Teaching Assistant, CMU AI Scholarship Program
- 2023 – 2025 Seminar Organiser, CMU Weekly Accessibility Lunch
- 2024 Mentor, RoboBuddies Mentorship Program

External Reviewer

- 2024, 2025 ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)
- 2024 ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW)

Student Volunteer

- 2024 ACM SIGACCESS Conference on Computers and Accessibility (ASSETS)

Talks

- 2023 “News Consumption Behaviour of BVI Individuals in India”, Accessibility Lunch, CMU
- 2022 “Towards Optimizing OCR for Accessibility”, EMPOWER, IIT Madras Research Park
- 2022 “Democratizing Printed Content”, TEM Reading Group, Microsoft Research