Peya Mowar

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EDUCATION

08/2023-08/2025 Carnegie Mellon University (CMU), Pittsburgh, PA

MS (Thesis), Robotics

08/2017-07/2021 Delhi Technological University (DTU), Delhi, India

B.Tech., Information Technology

RESEARCH EXPERIENCE

09/2023-Current Carnegie Mellon University

Graduate Research Assistant, Robotics Institute

Advisors: Prof. Jeffrey P. Bigham, Prof. Aaron Steinfeld

Evaluating the effects of AI coding assistants in eliciting implicit developer behaviour towards accessible UI development.

11/2021–01/2023 Microsoft Research India

Research Fellow, Technology and Empowerment

Advisors: Dr. Saikat Guha, Dr. Mohit Jain

Examined news consumption behavior of blind participants and developed a document segmentation system for accessible e-papers through iterative prototyping.

01/2021-08/2021 Trinity College Dublin

Research Intern, School of Statistics and Computer Science

Advisor: Prof. Khurshid Ahmad

Studied impact of investor sentiment during elections on the financial market using vector

auto-regressive analysis.

RELEVANT PUBLICATIONS

Conference Papers

1. **Peya Mowar**, Meghna Gupta, and Mohit Jain. Breaking the News Barrier: Towards Understanding News Consumption Practices among BVI Individuals in India, 2024. Forthcoming in Proceedings of the 26th International ACM SIGACCESS Conference on Computers and Accessibility.

Posters and Workshop Papers

- 1. **Peya Mowar**, Yi-Hao Peng, Aaron Steinfeld, and Jeffrey Bigham. Tab to Autocomplete: The Effects of AI Coding Assistants on Web Accessibility, 2024. *Under submission to the 26th International ACM SIGACCESS Conference on Computers and Accessibility (Posters Track).*
- 2. Yuvanshu Agarwal and **Peya Mowar**. Shifted Reality: Navigating Altered Visual Inputs with Multimodal LLMs. In *VizWiz Grand Challenge (CVPR Workshop)*, 2024.
- 3. **Peya Mowar**. Accessibility in AI-Assisted Web Development. In *Proceedings of the 21st International Web for All Conference (W4A)*, 2024.
- 4. **Peya Mowar**, Tanuja Ganu, and Saikat Guha. Towards Optimizing OCR for Accessibility. In AVA: Accessibility, Vision, and Autonomy Meet (CVPR Workshop), 2022.

ENGINEERING EXPERIENCE

01/2023-06/2023 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%.

08/2021–10/2021 Morgan Stanley

Technology Analyst, Institutional Securities Technology

Underwent an intensive 12-week training covering OS, C++ (taught by Bjarne Strous-

trup!), Java, C#, Databases, Distributed Systems and UI/UX Patterns.

05/2020-8/2020 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	${\it CIFAR Deep Learning + Reinforcement Learning (DLRL) Summer School Fee Waiver.}$
2024	W4A Google 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 (PhD Level), Designing Human-Centered Software, Generative AI, Multimodal Foundation Models

COMMUNITY SERVICES

University Services

- 1. Graduate Teaching Assistant, CMU AI Scholarship Program
- 2. Seminar Organiser, CMU Weekly Accessibility Group Lunch

External Reviewer

- 1. ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW'24)
- 2. ACM SIGCHI conference on Human Factors in Computing Systems (CHI'24)

Talks

- 1. "News Consumption Behaviour of BVI Individuals in India", Accessibility Lunch, CMU
- 2. "Towards Optimizing OCR for Accessibility", EMPOWER 2022, IIT Madras Research Park
- 3. "Democratizing Printed Content", Technology and Empowerment Reading Group, Microsoft Research

[CV compiled on August 9, 2024]