Shipi Dhanorkar

UX Research . Responsible AI . Policy . Engineering

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I am a software engineer turned UX researcher, passionate about delivering impact, driving innovation, and using evidence-based decision making to inform business strategy. My multi-disciplinary backgrounds allow me to collaborate cross-functionally across teams and stakeholders. I am currently leading user research to inform the design and development roadmap for educational technology products powered by machine learning algorithms. Insight, foresight and action through solid mixed-methods approach that leverages strong analytical skills.

Education

2016-current   **PhD candidate, Informatics (HCI Focus)**
Expected, May 2022
Minor - Social Data Analytics (SoDA)
Big Data Social Science Fellow
Pennsylvania State University, PA

May 2013   **MA, Educational Policy & Administration**
Program Evaluation & Computer Science
University of Minnesota-Twin Cities, MN

June 2008   **BE, Computer Science**
University of Pune, India
Ranked 8th in the graduating class

Skillset

UX Research
Interviews
Focus groups
Surveys
Usability testing
Heuristics review
Contextual inquiry
Scenario-based design
Co-design workshops
Wireframing (Balsamiq)
Prototyping (Adobe XD)
Affinity mapping (Mural)
Qualitative analysis
(MAXQDA, NVivo, Marvin)

Programming
Statistical analysis (R, Excel)
Data science
Software programming
(C, C++, Java, MySQL)

Research Interests
User Research, HCI
Responsible AI
Educational tech
Human-centered AI
Community informatics

Publications

1. Who needs to know what, when? Broadening the Explainable AI (XAI) Design Space by Looking at Explanations Across the AI Lifecycle ACM Designing Interactive Systems '21

2. What do I need to know? Designing Student Learning Tools that Aid Interaction with Recorded Lecture Content- ACM Learning-at-Scale '21

3. A review of techniques for promoting engagement with lecture content: - EduLearn '21

4. Crowdsourcing Change: A novel vantage point for investigating online petitioning platforms - iConference '19

5. Empowering Community Water Data Stakeholders Interacting with Computers, '19

6. Can we nudge users toward better password management? An initial study - ACM CHI Extended Abstracts '18

7. Strengthening community data: Towards pervasive participation- Digital Government Society DG.O '18

Professional Experience

UX Research Intern for Responsible AI, Microsoft Research
AI, Ethics, and Effects in Engineering and Research   May-Aug 2021

- Uncovered a range of responsible AI practices, interviewing 15+ industry-wide AI practitioners and experts to create **Microsoft's first responsible AI maturity model** framework for product teams.

- Initated and led **revamp of reliability and safety principles** used by all Microsoft AI product teams for evaluating their model's impact.

- **Key contributing member** of the AI reliability and safety education committee to promote trustworthy AI product innovation.

- Coached an AI engineering team about the value of generative research in user safety, data collection, analysis, and **prioritizing findings directly impacting the products engineering roadmap**.

UX Researcher, Teaching & Learning with Technology, PSU
Data Empowered Learning Innovation   Sep '19-current

- Spearheading **end-to-end UX research** for an AI-based learning tool for college students using surveys, interviews and usability testing.

- Collaborating with lead engineer, project manager, instructional designer, on concept testing, prototyping and designing a data-driven learning analytics tool for reflective teaching with university faculty.

- **Informing student data privacy and policy** discussion at Penn State by sharing research insights gathered from user interviews.

UX Research Intern, IBM Research Almaden
Explainable AI for Natural Language Processing (XAI+NLP)   July-Sep 2019

- Crafted an interview study with 30 stakeholders including AI/ML researchers, developers, project managers, designers and business leaders to illuminate different personas of explanation consumers, factors and mechanisms that foster transparency and user comprehension of an AI product and its decision.

- Defined a collaborative annotation process with team members to review XAI+ NLP literature, co-creating a new taxonomy and ultimately spawning a new research program.

Big Data Social Science Fellow, Social Data Analytics, PSU
NSF-funded Interdisciplinary Fellowship   Aug '17 - May '18

- **Quantitative data analysis** for multiple social impact projects including (i) identifying communication patterns between citizens and local governments (ii) detecting emotional contagion via tweets

- Drove **persona** and user needs research to design a a geo-visual analytics tool for **NYC city planners** to explore noise complaints data.

Researcher, UMN Center for Youth Development   Jun '13 - Oct '15

- Built and executed research plans to identify gaps, pain points monitor engagement in statewide 4H youth development programs.

- Formalized a 6000+ member survey to define new engagement metrics, and integrated it into research practice for benchmarking.

Software Engineer, Starent Networks Inc. (now Cisco Systems)

- Engineered a call charging subsystem for telecom providers like O2, Verizon derived from session characteristics like call time, data volume, content.

- Implemented a tool to convert incoming data in IPv4 packet format to IPv6 format to seamlessly handle call migration from 3G to 4G networks.