

Shaan Chopra

GHC SCHOLAR 2023, 2020 | TAPIA SCHOLAR 2022 | ACM-WOMEN SCHOLAR 2018 | GOOGLE IWD SCHOLAR 2018

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Education

University of Washington

PHD IN COMPUTER SCIENCE & ENGINEERING

Advised by James Fogarty & Sean Munson | CGPA: 3.98 | **Selected Coursework:** Computer Ethics, HCI, AI, Critical Technology Practice

Seattle, WA, USA

Sept 2021 - ongoing

University of Maryland - College Park

MASTER OF SCIENCE IN HUMAN-COMPUTER INTERACTION

Advised by Eun Kyoung Choe | Committee: Amanda Lazar, Beth St. Jean | CQPA: 4.0 | **Selected Coursework:** Health Informatics, Data Visualization, UX Research Methods, Interaction Studio, Makerspaces

College Park, MD, USA

Aug 2019 - May 2021

Indraprastha Institute of Information Technology, Delhi (IIIT-D)

B.TECH. IN COMPUTER SCIENCE & ENGINEERING

CGPA: 8.7/10 | Dean's List (≥ 9.5 GPA 3rd Year) | **Selected Coursework:** Data Structures, Algorithm Design & Analysis, Object-Oriented Programming, Databases, Operating Systems, Advanced Biometrics, Designing Human-Centered Systems, Wearable Applications

New Delhi, India

Aug. 2015 - May 2019

Skills

Research

User Research • User-Centered Design • Participatory Design • Study Design • Qualitative Research & Analysis • Mixed-Methods • Data Visualization

Languages

Python • C/C++ • Java • Ruby • MATLAB • HTML • CSS • JavaScript

Tools and Technologies

Flask • Android Studio • Keras • SQL • NoSQL • MongoDB • Angular JS • Spring • D3.js • Tableau • \LaTeX • Tinkercad • Figma • Invision • Balsamiq • Marvel • Sketch • Photoshop • Qualtrics • UserZoom • Nvivo • Dedoose

Experience

Population Health Initiative (PHI) - UW

SOCIAL ENTREPRENEURSHIP FELLOW

- Worked as a part of the PHI to **understand the market need & develop a strategy for adoption** of the new, culturally-responsive child developmental screening tool being developed by the project team (Julie Kientz, Kendra Liljenquist)
- Conducted **customer discovery & market research**, interviewing various stakeholders
- Provided recommendations on cost-measuring, policy, legal, & regulatory issues
- Discussed considerations for scaling, financial models, & sustainability of the tool 🔗

Seattle, WA

June 2023 - Aug 2023

Parkview Mirro Center for Research and Innovation

RESEARCH INTERN

- Worked with Jessica Pater on understanding data needs & communication practices between providers & Long Covid patients
- Conducted interviews & focus groups** with medical providers
- Used **qualitative & quantitative methods** and **data visualization** to analyze **health tracking, survey, interview & EHR data**
- Submissions currently under review

Fort Wayne, IN

June 2022 - Sept 2022

Appruve

USER EXPERIENCE ENGINEER INTERN

- Worked with product team to identify research questions and conduct **heuristic & usability assessments, interviews, surveys & research use-cases** for 2 consumer platforms - Appruve Identity & Appruve Financial
- Generated **user stories**, system requirements & **user workflows** for these Appruve products
- Applied **machine learning & computer vision** algorithms to detect & verify components of African IDs; integrated this with Appruve Identity

Newark, DE

June 2020 - Aug 2020

INRIA

RESEARCH COLLABORATOR | LOKI TEAM

- Created a design space of visual & haptic perceptual factors that influence discovery of microgestural input methods in touch-based interfaces.
- Designed and implemented a collection of interactive graphical widgets using the proposed design space that affords microgestural input
- Designed a study to conduct **qualitative & quantitative user evaluations** of the proposed designs

Lille, France

June 2020 - Aug 2020

University of Maryland - College Park

RESEARCH ASSISTANT (UX)

- Conducted **in-depth interviews & app-based diary studies** to understand strategies of students (international & local) to cope with COVID-19
- Conducted a cross-cultural study, ran 40 **online experiment sessions** with 4 participants each under 3 experiment conditions to gauge the effectiveness of machine translation in supporting multilingual teamwork

College Park, MD

May 2020 - Sept 2020

CommunicateHealth, Inc.

Rockville, MD

UX RESEARCH & DESIGN COLLABORATOR

Sept 2019 - Dec 2019

- Worked with CommunicateHealth to design accessible, understandable & usable mobile friendly website for healthfinder.gov for providing health information to low literacy users in the U.S.
- Employed **contextual design** & **user-centered design**: performed **contextual inquiry**, **affinity diagramming**, **experience modeling**, **low & high fidelity prototyping**, **wireframing**, **usability testing** & **inspections**

Mélange Lab, IIIT-Delhi

Delhi, India

RESEARCH ASSISTANT

Aug 2017 - Sept 2019

- Applied **participatory design** & **qualitative research** techniques including **interviews**, **surveys**, **think-aloud sessions** & **thematic analysis** to understand needs & aspirations of Menstrual Health Education & Hygiene in India & propose designs of culturally-responsive technologies
- Engaged with frameworks such as Feminist HCI, Aspiration-based Design, Asset-based Design & Storied Spaces for analysis

Selected Projects

Examining Community-Responsive AI-enabled mHealth Tools for Hispanic & Latinx Populations

- Collaborating with research ethicists, pediatric pulmonologists & public health researchers Seattle Children's Hospital to examine Hispanic & Latinx community perspectives of AI-powered mHealth tools
- Conducting **Focus Group Sessions** in rural & urban Washington to explore health condition & population-specific considerations for clinical utility, usability, burden, privacy & data sharing in mHealth tools
- Clinical scenarios in focus: pediatric asthma, depression & dementia
- Analyzing data using **thematic analysis**
- Developing a translational resource for supporting cultural-responsiveness in mHealth and AI/ML research in health

Designing to Record & Share Menopause Experience Across Generations

- Studied practices for recording & sharing menopause experiences across generations and within families
- Created **design sketches & probes** for recording & sharing menopause legacies to use in **remote co-design** sessions
- Analyzed data using **inductive thematic analysis**
- Submission currently under review

Analysing Heterogeneous Health Data using Bayesian Networks

- Modeled heterogeneous health data using Bayesian networks to support participants identify cause and effect relationships (tool and Bayesian network framework developed by Alex Okeson)
- Using a combination of **inductive and deductive thematic analysis** to analyze the technology probe user study to examine how people answer questions, evolve their tracking goals/behavior, and make health decisions based on interactions with the Bayesian network

Tracking and Managing Stigmatized Enigmatic Health Conditions

- Worked with Dr. Eun Kyoung Choe to study experiences of people with enigmatic conditions (e.g., PCOS) with the aim to support their tracking and collaboration needs
- Conducted **in-depth interviews**, **participatory design & research**, and **data analysis** on an online social support platform
- Work resulted in a full paper🔗 and master's thesis🔗

Design Methods for Dementia

- Worked with Dr. Amanda Lazar and Mary Radnofsky (a dementia rights advocate) to propose **user-centered design methods** for designing for and with people with cognitive disabilities, particularly people with dementia
- Designed and conducted workshops implementing the proposed method
- Used a **critical grounded theory** to analyze the collected data
- Work resulted in a case study publication🔗

Designing Voice-Assistant Technologies for Older Adults

- Worked with Dr. Amanda Lazar and Alisha Pradhan (Ph.D student) on a project to understand voice assistant use by older adults
- Assisted with designing the study, including conceptualization and material creation for the **participatory design** sessions
- Conducted remote design sessions with older adults
- Submission currently under review

Selected Publications

S. Chopra: A Discussion about Positionality, Research Stances, and Amplification of the "Right" Forces in Technology Design. Feminist Voices about Ecological Issues in HCI, Workshop at CHI'22. 🔗

S. Chopra, R. Zehrung, T. Shanmugam, E. K. Choe: Living with Uncertainty and Stigma: Self-Experimentation and Support-Seeking around Polycystic Ovary Syndrome. CHI'21. 🔗

S. Chopra, E. Dixon, K. Ganesh, A. Pradhan, M. Radnofsky, A. Lazar: Designing for and with People with Dementia using a Human Rights-Based Approach. CHI'21 Case study. 🔗

A. Tuli, **S. Chopra**, P. Singh, N. Kumar: **Menstrual (Im)Mobilities and Safe Spaces.** CHI'20 🔗

A. Tuli, **S. Chopra**, N. Kumar, P. Singh: **Learning from & with Menstrupedia: Towards Menstrual Health Education in India.** CSCW'18 🔗

S. Chopra: Studying Intersections in Conducting Research with Minors from Lower Socioeconomic Background in India. HCI Across Borders (HCIB), Symposium at CHI'19 🔗

Awards & Achievements

- 2023 **Grace Hopper Conference Scholarship**, Received UW CSE funding to attend GHC 2023
- 2022 **TAPIA Conference Attendee**, Received UW CSE funding to attend TAPIA Conference 2022
- 2021 **Wissner-Slivka Endowed Graduate Fellowship**, UW CSE 1st year fellowship
- 2020 **College of Information Studies Alumni Chapter Scholarship**, Exceptional graduate student at the iSchool
- 2020 **Grace Hopper Conference Scholarship**, Received UMD iSchool scholarship to attend GHC 2020
- 2018 **ACM-Women Scholarship**, Received travel scholarship to attend CSCW 2018
- 2018 **Google IWD Scholarship**, Received travel scholarship to attend IWD Celebrations at Google, Bangalore
- 2018 **Dean's List for Academic Excellence**, 9.5+ CGPA in third year of undergraduate degree at IIIT-D
- 2018,16 **Dean's List for Overall Contribution to Student Activities**, Exceptional contribution to activities at IIIT-D

Teaching Assistant Experience

- CSE 512 **Human Computer Interaction**, with James Fogarty at UW *Fall 2023*
- CSE 440 **Human Computer Interaction**, with Scott Ichikawa at UW *Spring 2023*
- INST 462 **Data Visualization**, with Babaki Fotouhi at UMD *Spring 2021*
- INST 201 **Introduction to Information Science**, with M. R. Sauter at UMD *Spring & Fall 2020*
- INST 362 **User-Centered Design**, with Rachael Bradley-Montgomery at UMD *Fall 2019*
- HSS 2xx **Digital Ethnography**, with Shriram Venkatraman at IIIT-D *Fall 2017*

Service

- 2021-24 **Reviewer**, CHI
- 2022-2024 **Reviewer**, CSCW
- 2022 **Student Volunteer**, CHI
- 2021 **Web Co-Chair**, CSCW
- 2019-20 **Mentor**, "User-Centered Design of Technology for People with Dementia" workshop at TECHNICA
- 2019 **Student Volunteer**, ICTD