

# Drshika Asher

Computer Science

University of Illinois at Urbana-Champaign

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## RESEARCH INTERESTS

Virtual/Augmented Reality, Accessibility, Social Computing, Moderation, Computer Supported Cooperative Work

## EDUCATION

### University of Illinois at Urbana-Champaign

*Bachelor of Sciences, Computer Science, Statistics; GPA: 3.4, Expected May 2024*

*Relevant Coursework:* Algorithms & Models of Computing, Computer Architecture, Data Structures, Discrete Structures, Ethical and Professional Issues in CS, Game Design, Linear Algebra (Python), Numerical Methods, Probability and Statistics for Computer Science, Text Information Systems, User Interface Design.

## RESEARCH EXPERIENCE

### Microsoft Research

*Undergraduate Research Intern, June 2022*

*Advisor: Mar Gonzalez-Franco (EPIC group, HCI group), Michel Pahud (EPIC Group)*

Audio Driven Avatars in Virtual Meetings (C#, Unity, Python TensorFlow)

Accessible Multi-Device interactions for users with Vision Impairment (HTML, Javascript, Azure Speech API)

### University of Illinois Urbana-Champaign, Department of Computer Science

*Clare Boothe Luce Research Fellowship, August 2022-December 2022*

Advisors: [Eshwar Chandrasekharan](#) , [Tanvi Bajpai](#)

Designed a study to survey VR Moderators on pain points of moderating a 3D VR space.

Designed and implemented a simulation to test different moderation interventions using C#/Unity.

*CS STARS Research Fellowship, August 2021- present*

Advisors: [Alex Kirlik](#) , [Sebastian Rodriguez](#)

Building a VR game (C#, Unity) for a study examining whether the physicality of an agent affects user trust.

*Summer REU participant, June-July 2021*

Advisors: [Eshwar Chandrasekharan](#) , [Tanvi Bajpai](#)

Scraped Twitter for discourse about Audio Based Social Platforms (ABSPs). Used Topic Modeling (Sparse Additive Generative Models (SAGE) and Latent Dirichlet Allocation (LDA)) to

identify key trends and to help Graduate Mentor create a framework for classifying ABSPs. Extended line of inquiry from Clubhouse to other ABSPs like Twitter Spaces.

## **University of Chicago, Department of Materials Science and Engineering**

*Research Volunteer, June-July 2019*

Advisors: Professor Jie Xu

Designed and engineered microfluidic mazes to illustrate basic fluid flow mechanics concepts. Analysed the effects of gamified learning methods on student learning outcomes.

## **PUBLICATIONS**

*(ACM CSCW 2022)* Harmonizing the Cacophony: An Affordance-aware Framework of Audio-Based Social Platform Moderation. Tanvi Bajpai, **Drshika Asher**, Anwesa Goswami, Eshwar Chandrasekharan (arXiv:2107.09008)

## **TEACHING**

### **CS225: Data Structures**

*Lead Course Assistant, August 2022-Present*

*Course Developer, January 2022-August 2022*

### **CS196: Computer Science Honors**

*Project Manager and Head of Social Events, January 2021 - December 2021*

## **HONORS AND GRANTS**

AnitaB Grace Hopper Scholar (2023)

Clare Boothe Luce Research Scholar (2022)

Bank of America Grace Hopper Scholarship Recipient (2022)

JPMorgan Chase WCS Scholarship (2021-22)

UBER Career Prep Fellow (2022)

Facebook Above and Beyond Computer Science Scholar (2021)

Illinois CS Tapia Scholarship Recipient (2021)

US Presidential Scholar State Nominee (2020)

Prudential Spirit of Community State Nominee (2020)

ISAC State Scholar (2019)

NCWIT Aspirations in Computing Regional Affiliate Award Winner (2019)

## **LEADERSHIP/SERVICE**

### **Rewriting the Code**

*Rising Student Leader 7/2022-Current*

Chosen to participate in a cohort of 30 other women to work on RTC community projects while learning personal leadership skills throughout the year. Coordinated 3+ virtual keynote talks with gaming leaders like Dr. Kishonna Gray (Professor, Cyberfeminism expert) and Haiyan Zhang (Microsoft Xbox).

## **ACM (Association for Computing Machinery)**

*Corporate Chair, 5/2021 - 5/2022*

*Social Media Chair, 08/2020 – 5/2021*

Organized ACM social committee events and designed promotional materials for these events. Manage the ACM Instagram and Twitter page. Communicate with corporate sponsors and create engaging events for the student body. Manage a team of 10 students in cold outreach efforts. Raised \$10000+ in sponsorship funds during the pandemic.

## **HackIllinois**

*Experience Team, August 2021 - August 2022*

*Outreach Team, August 2020 – August 2021*

Contact companies to arrange corporate sponsorships and secure technical mentors for HackIllinois. Communicate with company representatives to satisfy all of their requirements, raising a total of \$30,000 for the hackathon.

## **Reflections | Projections**

*Content Chair, Feb 2021 – October 2021*

Raise awareness about inclusivity and diversity in the workplace by hosting technical talks and events with companies such as Google, PayPal, Microsoft, and Facebook. Facilitate career fairs to help connect students with employment opportunities.

## **MEMBERSHIP**

Association for Computing Machinery (2020–present)

National Center for Women in Computing (2019-present)

Rewriting the Code (2020-present)

AnitaB Systems (2022-present)

## **TECHNICAL SKILLS**

### **Programming**

Python, C/C++, C#, Java, SQL, Rust, Go, JavaScript, HTML, CSS, Kotlin, Swift (IOS Development)

### **Technologies**

Git, LaTeX Unity, Jupyter Notebook, Django, Pytorch, Flask, Firebase, Vim, MongoDB, AWS, REST API, REST Framework, UIKit

## **LANGUAGES**

Hindi (Conversational)

Kutchi (Fluent)

Spanish (Conversational)

*Last updated: Sep 4, 2023*