

Ruchi Panchanadikar

PH.D. STUDENT | HUMAN CENTERED COMPUTING

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Education

Clemson University, USA

PH.D. IN HUMAN CENTERED COMPUTING | ADVISED BY DR. GUO FREEMAN

Research Interests: XR, Games and Play, AI and Creativity, Human-AI Collaboration

2023 - Present

GPA: 4.0

Pennsylvania State University, USA

M.S IN INFORMATICS | ADVISED BY DR. TING-HAO 'KENNETH' HUANG

Thesis: CAP-turing Creativity: A Platform for Creativity Assessment in STEM Education

2021 - 2023

GPA: 3.83/4

Savitribai Phule Pune University, India

B.E IN COMPUTER ENGINEERING

2015 - 2019

GPA: 8.13/10

Academic and Profession Experiences

Clemson University

RESEARCH ASSISTANT | CUGAME LAB

- Working on conducting studies about the use of generative AI in various creative endeavors, like game development and streaming
- Studying to understand the harms caused by new technology on society and how they can be mitigated through human-AI collaboration

Aug 2023 - Present

Clemson, SC

Pennsylvania State University

RESEARCH ASSISTANT | BEATY LAB

- Collaborated with Dr. Roger Beaty and other postdoctoral students to develop an all inclusive web-based platform for creativity assessment in STEM education as part of a National Science Foundation funded project
- Single-handedly developed the Creativity Assessment Platform (CAP) and conducted pilot testing for the platform to assess its usability
- Created and designed a web-based platform that mimics the ChatGPT interface as part of a larger project for creativity assessment.

Oct 2022 - July 2023

State College, PA

Pennsylvania State University

INSTRUCTIONAL ASSISTANT | COLLEGE OF INFORMATION SCIENCE AND TECHNOLOGY

- Worked as an Instructional Assistant for IST 210 - Organization of Data in Spring 2021 and Fall 2022
- Graded assignments, exams, and final projects, held office hours to provide additional support to students, conducted lectures

Jan 2022 - Dec 2022

State College, PA

Pennsylvania State University

RESEARCH ASSISTANT | CROWDAI LAB

- Collaborated with Dr. Ting-Hao 'Kenneth' Huang and doctoral students in the CrowdAI Lab to design and develop user-friendly web applications
- Aided in the conduction of user-studies to test the usability of developed platforms

Nov 2021 - May 2023

State College, PA

eQ Technologic Inc.

USER INTERFACE DEVELOPER

- Collaborated with UX designers to create large scale and userfriendly websites for DaaS products used by companies worldwide
- Ensured smooth functioning of webpages with regular maintenance and quality testing
- Successfully help initiate the shift of the front-end technology stack for 3 major DaaS products by conducting research on available technologies and pitching the changes to management

July 2019 - July 2021

Pune, India

Bitwise Solutions

BUSINESS INTELLIGENCE INTERN

- Created easy to understand data visualization dashboards for large datasets enabling clients to increase ease of use and improve visibility of the nuances in the data

July 2018 - Sept 2018

Pune, India

Selected Projects

Exploring Challenges and Opportunities Provided by Generative AI to Support Indie Game Developers

Aug 2023 - Present

DATA SCRAPING & COLLECTION, QUALITATIVE DATA ANALYSIS, THEMATIC ANALYSIS, QUALITATIVE CODING

- Collected over 4000 comments and posts from social media to understand, through qualitative coding, how indie game developers perceive the impacts of generative AI on their work practices. This analysis helped tease out the opportunities and challenges created by generative AI and propose ways to mitigate the challenges and improve on the opportunities through developer-artist-AI collaboration.
- Conducted interviews with indie game developers to understand their perspectives on the use of generative AI in indie game development to further inform the design of generative AI. This study helped explore the novel opportunities and tensions behind using generative AI for creative technology work.

Exploring Social VR Streamers' Unique Strategies to Engage with Their Audiences

Aug 2023 - Present

CONDUCTING INTERVIEWS, QUALITATIVE DATA ANALYSIS, THEMATIC ANALYSIS, QUALITATIVE CODING

- Conducted interviews with social VR streamers to understand how they leverage the unique affordances of VR to improve engagement with their audiences and provide one of the first empirical evidence on how social VR streaming can creatively combine immersive VR activities with interactive live streaming

Unmasking Nationality Bias in Large Language Models

Oct 2022 - Aug 2023

NATURAL LANGUAGE PROCESSING, STATISTICAL DATA ANALYSIS, USER STUDIES

- Conducted studies to understand how Large Language Models (LLMs) can be biased against different nationalities. Using a prompt, we had GPT-2 generated 100 stories about each of the 192 countries recognized by the United Nations. The first study helped assess whether the texts were unfairly biased against certain countries and compared these with the country's economic standing. In the second study, we conducted interviews to understand whether the biases affect people and the impressions they form about the countries.

Creativity Assessment Platform (CAP)

Oct 2022 - July 2023

WEB DEVELOPMENT, CREATIVITY ASSESSMENT

- Developed a free-standing web-based platform using Django, HTML/CSS, and Javascript as a one-stop-shop for AI based creativity assessment. As a part of a National Science Foundation funded project, the platform will be used to help researchers and educators administer and conduct large-scale creativity assessment projects in STEM education. It is a first of its kind platform that integrates various tested and peer-reviews tests for parameterized assessment of creativity.

Publications

PEER REVIEWED CONFERENCE AND JOURNAL PAPERS

- Ruchi Panchanadikar**, Guo Freeman (2024). "I'm a Solo Developer but AI is My New Ill-Informed Co-Worker": Envisioning and Designing Generative AI to Support Indie Game Development. In *ACM SIGCHI Conference on Computer-Human Interaction in Play (CHI PLAY 2024)*, Oct 14-17 2024, Tampere, Finland [Best Paper Honorable Mention Award: Top 5%]
- Freeman, G., Frommel, J., Mandryk, R. L., Gugenheimer, J., Li, L., Johnson, D., Aragon, C., Asif, S. A., Bailey, J., Meryem, B., Burger, B., Cmentowski, S., Hancock, J., Hides, L., Hu, H., Hu, Y., Li, W., **Panchanadikar, R.**, Sayadi, N., Tebbe, D., Wöhler, L., You, X., Zhang, Z., & Zytke, D. (2024). Understanding and Mitigating New Harms in Immersive and Embodied Virtual Spaces: A Speculative Dystopian Design Fiction Approach. In *Companion of the 2024 Computer-Supported Cooperative Work and Social Computing (CSCW Companion'24)*
- Ruchi Panchanadikar**, Guo Freeman, Kelsea Schulenberg, Lingyuan Li, & Yang Hu (2024). "A New Golden Era" or "Slap Comps": How Non-Profit Driven Indie Game Developers Perceive the Emerging Role of Generative AI in Game Development. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '24)*, May 11-16, 2024, Honolulu, HI, USA. (Acceptance rate: 33.88%)
- Guo Freeman, Yang Hu, **Ruchi Panchanadikar**, Amelia L Hall, Kelsea Schulenberg, & Lingyuan Li (2024). "My Audience Gets to Know Me on a More Realistic Level": Exploring Social VR Streamers' Unique Strategies to Engage with Their Audiences. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '24)*, May 11-16, 2024, Honolulu, HI, USA. (Acceptance rate: 33.88%)
- Venkit, P., Gautam, S., **Panchanadikar, R.**, Huang, K., Wilson, S. (2023). Unmasking Nationality Bias: A Study of Human Perception of Nationalities in AI-Generated Articles. *AAAI/ACM Conference on AI, Ethics, and Society- AIES '23*
- Venkit, P., Gautam, S., **Panchanadikar, R.**, Huang, K., Wilson, S. (2023). Nationality Bias in Text Generation. *Conference of the European Chapter of the Association for Computational Linguistics- EACL '23*

WORKSHOP PAPERS

- Ruchi Panchanadikar** (2024). Exploring Proactive Interventions toward Harmful Behavior in Embodied Virtual Spaces. In *Workshop: Novel Approaches for Understanding and Mitigating Emerging New Harms in Immersive and Embodied Virtual Spaces (CHI'24)*, May 11-16 2024, Honolulu, HI, USA

Media Coverage

PENNSTATE NEWS

- Tutella, Francisco. "Positive triggering method reduces nationality bias in large text generators" (<https://www.psu.edu/news/research/story/positive-triggering-method-reduces-nationality-bias-large-text-generators/>) , April 27, 2023

Awards & Honors

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| 2023 | Nittany AI Challenge , Selected and awarded as one of the Top 20 teams in the AI Hackathon for ChoroNews: A News-based AI Timeline Summarization Application | State College, PA |
| 2024 | Gary Marsden Travel Award , Awarded \$500 to travel to and present paper at CHI PLAY 2024 | Tampere, Finland |

Services

CSCW 2025, CHI 2025

October 2024 - Present

PAPER REVIEWER

GROUP 2025

January 2025

STUDENT VOLUNTEER CHAIR

Hilton Head Island, SC

CSCW 2023

STUDENT VOLUNTEER

October 2023

Minneapolis, MN

Association for India's Development - Penn State Chapter

TREASURER

May 2022 - May 2023

State College, PA

Nrityadham School of Performing Arts

HEAD OF DIGITAL DESIGN, TEACHER, DANCE TROUPE MEMBER

2016 - Present

Pune, India

TEDxPICT

HEAD OF DIGITAL DESIGN, CORE TEAM MEMBER, TALK CURATOR

July 2016 - May 2018

Pune, India

Skills

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|------------------------|---|
| Programming | Python, Java, R, SQL |
| Web Development | HTML, CSS, JavaScript, JQuery, Django, Bootstrap, D3.js, Backbone |
| Tools | Tableau, Flourish, Adobe Photoshop, Adobe Premier Pro, Adobe Illustrator |
| Research | Qualitative Data Analysis, Qualitative Coding, User Interviews, Social Media Analysis |