

Anant Mittal

🏠 Seattle, WA | anmittal@cs.washington.edu | 734.780.5592

Designing, Building, and Evaluating Human-AI Systems with Mixed Methods

EDUCATION

PHD, COMPUTER SCIENCE

UNIVERSITY OF WASHINGTON,
ALLEN SCHOOL OF COMPUTER
SCIENCE & ENGINEERING
Expected Spring 2025 | Seattle, WA
Thesis: Designing Feature-Rich
Communication and Collaborative
Systems in Accessibility and Health

MS, INFORMATION SCIENCE

UNIVERSITY OF MICHIGAN
May 2019 | Ann Arbor, MI
Specialization in Data Science and ML

BACHELOR OF TECHNOLOGY, COMPUTER SCIENCE

INDRAPRASTHA UNIVERSITY
August 2013 | Delhi, India

SKILLS

ENGINEERING

Full-Stack Engineering,
Machine Learning,
Natural Language Processing,
Cloud Computing Services,
Web and Mobile Development,
Relational and Non-Relational Databases

RESEARCH AND DESIGN


Prototyping, Experiment Design,
Semi-Structured Interviews,
Focus Groups, Wizard of Oz,
Qualitative Study Design,
Qualitative and Quantitative Data
Analysis, Data Visualization

TEACHING

Introduction to Human-Computer
Interaction, Advanced Topics in
Human-Computer Interaction, Software
Development for Data Scientists, Games
Capstone

LINKS

 [anantmittal.github.io](https://github.com/anantmittal)

 [anantmittal](https://www.linkedin.com/in/anantmittal)

 [anantmittal](https://twitter.com/anantmittal)

 ORCID

EXPERIENCE

UNIVERSITY OF WASHINGTON | GRADUATE RESEARCH ASSISTANT

June 2019 – present | Seattle, WA

- **SCOPE: Technology Enhanced Collaborative Care for Cancer & Depression**
 - Built SCOPE, an open-source web-based patient-provider system for providers and people with cancer to manage their treatment and depression.
 - Deployed the platform for a clinical trial in 6 cancer clinics in Washington (100+ cancer patients enrolled to date) and conducted 45 interviews (24 with patients and 21 with behavioral health providers) to understand usability and implementation challenges.
 - Wrote position paper for workshop on bridging HCI and implementation science, reflecting on scaling the SCOPE research system for real-world impact. [PDF]
 - Analyzed interview data and wrote a manuscript currently in review to the ACM Conference on Computer-Supported Cooperative Work and Social Computing.
 - Currently building generative AI enhanced features to support patient-provider collaboration in mental health interventions such as behavioral activation.
- **Enhancing Executive Functions through Math Learning Games**
 - Designed and prototyped math learning games (e.g., prototype 1, prototype 2) to enhance executive functions like working memory, cognitive flexibility, and inhibition control, which support socioeconomic success and can overcome learning challenges in under-resourced schools.
 - Ran mechanical turk experiments with 200+ turkers to evaluate if the games improved executive functions.
- **Scientific Discovery through Games**
 - Built a machine learning pipeline for Mozak, a citizen science game for scientific discovery in neuroscience where players collaboratively reconstruct complex 3D representations of neurons by tracing their volumetric image.
 - Computed incorrect neuron traces made by non-expert players using game data and generated tutorials using centroid and density based clustering methods.

MICROSOFT RESEARCH | RESEARCH INTERN

June 2022 – September 2022 | Bengaluru, India

- **Jod: Examining Design and Implementation of a Videoconferencing Platform for Mixed Hearing Groups**
 - Designed and built Jod, an open-source videoconferencing platform to reduce accessibility barriers for mixed-hearing groups, with features such as customizable video tiles, preset feedback messages, and AI-based gesture recognition.
 - Conducted user studies with 34 participants, including 18 d/Deaf or hard of hearing participants, 10 hearing participants, and 6 sign language interpreters.
 - Analyzed system usage logs and focus group transcripts and published our findings to the ACM Conference on Computers and Accessibility. [DOI]

SCIENTIFIC SOFTWARE ENGINEERING CENTER, ESCIENCE INSTITUTE | GRADUATE RESEARCH ASSISTANT

September 2023 – June 2024 | Seattle, WA

- **SciPy Tutorial:** Wrote content and delivered a tutorial on generative AI and retrieval-augmented generation for SciPy conference 2024 to 50+ attendees.