

Kirandeep Kaur

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Education

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|----------------|---|--------------|
| 2023 – present | 📖 University of Washington.
Ph.D. in Computer Science & Engineering
<u>Advisor</u> : Chirag Shah | Seattle, WA |
| 2020 – 2022 | 📖 Indian Institute of Technology (IIT).
M.Tech. in Computer Science
<u>Advisors</u> : Shweta Jain, Sujit Gujar | Ropar, India |

Honors and Awards

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| 2026 | 📖 AWS Cloud Computing Research Credit Award. |
| | 📖 ACM CHIIR Registration Grant. |
| 2025 | 📖 Nominated for the Excellence in Teaching Award . |
| 2024 | 📖 ACM RecSys registration and Travel Grant. |
| | 📖 Microsoft Endowed Fellowship, Microsoft. |
| 2022 | 📖 The Cornell, Maryland, Max Planck Pre-Doc Fellowship. |
| | 📖 Nominated for Best M.Tech Thesis Award at IIT Ropar. |
| | 📖 ACM KDD Travel Grant, IIT Gandhinagar. |
| 2020-2022 | 📖 Indira Gandhi Scholarship, IIT Ropar. |
| 2015-2019 | 📖 Post-Matric Scholarship for Undergraduate Studies, Guru Nanak Dev University. |

Research Publications

* and † denote equal contribution; [Google Scholar](#)

Journal Publications

- [J.1] **K.Kaur**, Vinayak Gupta, Manya Chadha, and Chirag Shah.
[Efficient & Responsible Adaptation of Large Language Models for Top-k Recommendations](#).
> *ACM Transactions on Recommender Systems*, 4(3), Article 41, 2026.
> *Generative Models for Recommender Systems Workshop (ROEGEN@RECSYS'24)*.
- [J.2] Shivam Gupta, **K.Kaur**, and Shweta Jain.
[EqBal-RS: Mitigating Popularity Bias in Recommender Systems](#).
> *Journal of Intelligent Information Systems*, 62(2), 509–534, 2024.

Conference Proceedings

- [C.1] **K. Kaur**, Xingda Lyu, and Chirag Shah.
[Knowing Isn't Understanding: Re-grounding Generative Proactivity with Epistemic and Behavioral Insight](#).
> *Forty-third International Conference on Machine Learning, ICML 2026*.
> *Human-Centered Proactive Agents for Interactive Information Access Workshop @CHIIR'2026*.
> *AI-CoScientist workshop @ARD, Amazon Research Day 2026*.

- [C.2] **K. Kaur***, Vinayak Gupta*, Aditya Gupta, and Chirag Shah.
[PROPER Agents: Proactivity Driven Personalized Agents for Advancing Knowledge Gap Navigation.](#)
 > *The 64th Annual Meeting of the Association for Computational Linguistics. ACL 2026.*
 > *Human-Centered Proactive Agents for Interactive Information Access Workshop @CHIIR'2026.*
 > *AI-CoScientist workshop @ARD, Amazon Research Day 2026.*
- [C.3] **K.Kaur**, Preetam Daammu, Hideo Joho, and Chirag Shah.
[Beyond Static Evaluation: Rethinking the Assessment of Personalized Agent Adaptability in Information Retrieval.](#)
 > *In Proceedings of the 2025 Annual International ACM SIGIR Conference on Research and Development in Information Retrieval in the Asia Pacific Region, SIGIR-AP 2025.*

Workshop Papers & Technical Reports

- [W.1] **K. Kaur**, and Amit Goyal.
[Cold-Start Audiobook Recommendation via Cross-Domain Sub-Tower Fusion.](#)
 > *Generative AI for Streaming Media GenAI4SM Workshop@WSDM 2026.*
 > *Graph based Machine Learning GraphML Workshop@AMLC 2025.*
- [T.1] **K. Kaur**, Sujit Gujar, and Shweta Jain.
[Towards Fairness in Provably Communication-Efficient Federated Recommender Systems.](#)
 > *Technical report*, IIT Ropar, 2022.
- [T.2] **K. Kaur**, Alessandro Fabris, and Asia Biega.
[Investigating the Importance of Data Minimization in the Era of Federated Learning.](#)
 > *Technical report*, Max Planck Institute for Security and Privacy, 2023.

Professional Experiences

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| Jun 2026 – Sept 2026 |  Amazon Science.
<i>Applied Scientist II Intern</i>
Upcoming Science Intern at Applied AI with <i>Francesco Carbone.</i> | Bellevue, WA |
| Jun 2025 – Sept 2025 |  Amazon Science.
<i>Applied Scientist II Intern</i>
Science Intern at Amazon Music with <i>Amit Goyal.</i>
Cold-start audiobook recommendation via cross-domain transfer learning. | San Francisco, CA |
| Jan 2023 – Sept 2023 |  Max Planck Institute for Security & Privacy.
<i>Visiting Researcher.</i>
Research visitor at the Responsible AI Group with <i>Asia Biega.</i>
Investigated how GDPR's data minimization principle maps to Federated Learning frameworks. | Germany |
| Aug 2021 – Sept 2021 |  Alan Turing Institute & Rosalind Franklin Inst..
<i>Participating Researcher.</i>
Participated in Data Study Group and collaborated with a team of 9.
Improved the resolution of protein structure imaging via dark-frame subtraction to reduce noise. | London, UK |

Teaching Experience

Instructor

Fall 2025 **Course Instructor**, INFO 376: Intro to Search and Recommendation Systems, UW
Re-designed and taught an undergraduate class (of 35) on search and recommendation systems. Incorporated modern and emerging Generative IR techniques, designed assignments, exams, and in-class activities. Held weekly office hours and managed a teaching assistant. Mentored ten class projects and provided feedback throughout the quarter.

Teaching Assistant

Spring 2026 **Teaching Assistant**, CSE 493G1, Deep Learning for Computer Vision, UW
Instructor: Ranjay Krishna

Winter 2026 **Teaching Assistant**, CSE 473, Artificial Intelligence, UW
Instructor: Taylor Kessler Faulkner

Spring 2025 **Teaching Assistant**, CSE 493G1, Special Topics: Introduction to Deep Learning, UW
Instructor: Ranjay Krishna

Guest Lectures and Panels

Spring 2026 **Panelist**, CSE494: Guided Research in Computer Science and Engineering, UW
Served as a Panelist alongside multiple PhD students to answer questions of undergraduates on mentorship and research in computer science.

Spring 2025 **Guest Lecturer**, CSE 581: Computer Ethics, UW
Delivered a lecture on privacy and moral ethics in AI systems.

Summer 2025 **Panelist**, Porsesh Policy Research Institute, WA
Served as a Panelist alongside Dr. Bill Howe at the AI for Seniors event hosted by Ehsan Shayegan, Porsesh Policy Research Institute.

Mentorship Experience

Masters Students

2026 – present **Ziyu Zhou**, UW ISchool
Epistemic Intelligent Machines for Proactive Assistance.

2026 – present **Priyanshi Garg**, UW Linguistics.
Value Sensitive Design for Proactive Agents.

2024 – 2025 **Manya Chadha**, UW ISchool → Data Scientist at Kaizen Analytics.
Responsible Adaptation of LLMs for Recommendations.

Undergraduate Students

2025 – present **Xingda Lyu**, BS Student at UW Stat & InfoSci
Interdisciplinary Foundations of Proactive Agents.

2025 – present **Kevin Nguyen**, BS Student at UW CSE
Information flow and attack surfaces in complex agentic frameworks.

2025 – present **Akshith Sravanan**, BS Student at UW CSE
Information flow and attack surfaces in complex agentic frameworks.

High School Students

2024 – 2025 **Aditya Gupta**, Issaquah High School → Undergrad at Yale University
Proactive Agents for Knowledge Gap Navigation.

Professional Service

Organizing Committees

- 2026 **Human-Centered Proactive and Personalized Agents Workshop**, ACM CHIIR 2026
2024 **IEEE Innovation Renaissance Event**, IEEE Seattle Section

Student Volunteer Chair

- 2026 **ACM SIGIR Conference on Human Information Interaction and Retrieval**, ACM CHIIR 2026

Reviewing

- Conf. & Workshops **NeurIPS 2026, GenAI4SM @ WSDM 2026, IASEAI 2026**
Journal **TOIS** (ACM Transactions on Information Systems) 2025

Community Service

- 2025 – present **Co-founder**, Networking Series at RAISE, University of Washington
Co-founded quarterly in-person networking and unconference session series (RAISE Fall Exposition 2025, RAISE AI for ALL Event 2025.)
- 2025 – present **Co-Organizer**, RAISE Responsible AI Webinar Series, University of Washington
Coordinating weekly research talks and discussions on responsible AI.
- 2025 – present **Mentor**, UW Allen School Pre-Application Mentorship Service (PAMS).
A program supporting potential CS PhD applicants, with 80% from underrepresented communities.
- 2024 **Mentor**, UW Allen School First-Year PhD Mentorship Program.
Co-mentored two first-year PhD students by conducting weekly in-person mentorship sessions and monthly outings.
- 2024 **Student Volunteer**, ACM RecSys 2024.
Supported conference logistics and community engagement.
- 2021 **Student Volunteer**, IWDG,2021.
Supported virtual sessions at International Workshop on Domination in Graph
- 2020-2022 **Teaching Volunteer**, IITRpr.
Taught Maths and English to underprivileged students at an NGO - Pehchaan Ek Safar.