

Tanvi Bajpai

Website: tanvibajpai.com

tbajpai2@illinois.edu

EDUCATION	University of Illinois at Urbana Champaign (UIUC), IL 2019-Present <i>Ph.D.</i> in Computer Science Expected Graduation May, 2024 Working with Chandra Chekuri (Theory) and Eshwar Chandrasekharan (HCI) Carnegie Mellon University (CMU), Pittsburgh, PA 2015-2019 <i>B.S.</i> in Computer Science with Additional Major in Discrete Math & Logic
TEACHING	Teaching Assistant (TA) for the following courses: UIUC: CS173: Discrete Structures. F19 ⁺ , Summer 20 ⁺ CS473: Algorithms. S20 CS374: Introduction to Algorithms and Models of Computation, F20 ⁺ - denotes semester placed on "Teachers Ranked as Excellent" list ☞ CMU: 15-151: Mathematical Foundations of Computer Science. F16,F17*,F18* 15-451/15-651: Algorithm Design and Analysis. S18,S19 * - denotes semester spent as Head TA
WORK EXPERIENCE	Illinois Secondary Teacher and Computer Science Initiative ☞ Fall 2020 Designing a course to teach Discrete Mathematics to Illinois secondary school teachers as a part of a Computer Science curriculum. Microsoft - Explorer Intern Summer 2017 Worked for the Xbox Live Social team and their affiliate streaming platform Mixer. Developed a Node.js SDK to aid in chat-bot creation for Mixer and XBL users, and created a moderator chat-bot named MOSSMO that could monitor the overall sentiment of a chat and report users in order to demonstrate the SDK's functionality.
RESEARCH PROJECTS	Bootstrapping Virtuous Active Learning cYcles, CMU 2017-2019 Worked to develop discrete algorithmic frameworks to dynamically rank both students and student-sourced quiz questions based on peer performance and review. Worked with Professors R. Ravi and Wolfgang Gatterbauer. Fair Clustering with Outliers, UMD Summer 2018 Defined a bias-aware version of the canonical k -clustering with outliers problem. Created and adapted clustering algorithms to promote fairness and diminish bias. Worked with Professor Samir Khuller. Diversifying Recommendations, CMU 2016-2017 Developed a novel metric for diversity in recommendations that focused on increasing the diversity for item audiences. Formulated algorithms to optimize for the metric. Worked with Professor R. Ravi.
PUBLICATIONS	Revisiting Priority k-Center: Fairness and Outliers. Tanvi Bajpai, Deeparnab Chakrabarty, Chandra Chekuri, Maryam Negahbani (2020) (pre-print; submitted to IPCO) A new system-wide diversity measure for recommendations with efficient algorithms. Arda Antikacioglu, Tanvi Bajpai, R. Ravi, SIAM Journal on Mathematics of Data Science, 1(4), 759779. (2019).

OUTREACH	Graduate Women in Computer Science (GradWCS) organization, Co-President, UIUC	2019-present
	Responsible for reviving the GradWCS organization and organizing events for female graduate students in the CS department; develops panels and events for the undergraduate students studying CS to promote female participant in research and teaching.	
	Women School of Computer Science (W@SCS), Undergraduate event coordinator, Graduate student liaison,	2017-2019
	Created events relating to teaching, research, and impostor syndrome. Coordinated events with the graduate students to promote interest in research and going to graduate school.	
	Program in Algorithmic and Combinatorial Thinking (PACT) Mentor, TA, Guest Speaker	2016, 2017, 2020
	Worked as mentor and TA during summer of 2016. Guest lectured on sub-modular optimization in summer 2017. Running “help sessions” via Zoom for Fall 2020.	
INSTITUTIONAL SERVICE	Broadening Participation in Computing Committee, UIUC	2019-present
	SCS Dean Search Committee, CMU	2018-2019
HONORS AND AWARD	K&L Gates Prize ☞	2019
	University award for graduating senior who has best inspired fellow students at the university to love learning through a combination of intellect, high scholarly achievement, engagement with others and character.	
	CMU Women’s Association Outstanding Graduating Senior Award ☞	2019
	Award for graduating senior students, with a preference for students who demonstrate a commitment to the advancement of women in their academic pursuits.	
	Mark Stehlik Introductory & Service Teaching Award ☞	2019
	Award for graduating senior who brings their best and indispensable efforts to teaching introductory courses.	
	CMU Senior Leadership Recognition	2019
	CMU University Honors	2019
	Mark Stehlik SCS Alumni Undergraduate Impact Scholarship ☞	2018
	Scholarship recognizes and supports SCS undergraduates whose drive for excellence extends beyond the classroom - students who make a difference both in the field of computer science and the world around them.	