

Akshat Sharma

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EDUCATION

Bachelor of Science in Physics, Expected Graduation Fall 2024

Minor in Mathematics and Computer Science

College of Science and Engineering, University of Minnesota- Twin Cities Minneapolis, MN | Cumulative GPA: 3.87/4.0, Technical GPA: 4.0/4.0, Dean's Scholar, University Honors Programs

SKILLS

Industrial: Advanced physics and mathematics, Python, SQL, C, Java, front-end web development

Professional: Fluent in Hindi and English, MATLAB, LATEX, Google, and Microsoft apps

Laboratory: Graphene exfoliation, spectroscopy, error measurement/correction

WORK EXPERIENCE/INTERNSHIPS

Peer Tutor Mentor | SMART Learning Commons | January 2022 to Till Date

- Served as an academic resource for more than 400 students helping them understand concepts of mathematics and physics
- Assisted students in developing appropriate study and developmental skills that would enhance their academic success
- Managed the SMART service desk environment by welcoming students at the front desk, helping them check in with the tutors, providing customer service by answering any questions they might have, and ensuring that all the tutoring sessions ran smoothly.

Program Leader for Welcome Week 2022 | Department of OTE, UMN | August 2022 to September 2022

- Served as a positive representative of the University of Minnesota, Orientation & Transition Experiences (OTE) department with a group of 22 members in an event attended by over 7000 participants
- Facilitated student check-in, provided administrative support to students and organizing groups, employed leadership skills by guiding students throughout the welcome week experience, and managed details and logistics
- Led large clusters of students to their destined spots and ensured a making sure that each group from each track is at its desired location on time experiencing the aforementioned event to its fullest

Outreach Assistant | CSE DEI department, UMN | June 2022 to August 2022

- Adapted college-level mathematical concepts to deliver to middle school students inspiring hundreds of under-represented and under-served students to pursue STEM fields
- Managed unprecedented situations related to conflict among students, and emergency evacuations; applied policies and procedures for maintaining the health and safety of the group
- Developed skills such as team building, clear communication, and active listening through training provided by the job and an adaptive real-world experience with the students

PROJECTS/RESEARCH EXPERIENCES

Research on Graphene | September 2021 – April 2022

- Assisted in arranging graphene so that it acts like a super-conductor by exfoliating it for quasi-2D nanostructures
- Used spectroscopic techniques through an optical microscope to distinguish between mono-layer and bi-layer graphene and filtered the location of good-quality graphene on the silicon disk

Research on polycrystalline Germanium | March 2023 – Till Date

- Investigate the conductivity of polycrystalline germanium with respect to temperature and compare it to the conductivity of hydrogenated amorphous germanium and silicon thin film.
- Use integrated software systems to measure the current from an electrometer and the rate of change in temperature using a thermal compiler.
- Perform data analysis to compare expected results, $\kappa = 0.75$ with previously known Mott or Efros-Shklovskii variable-range hopping.