Mohnish Sonsare

612-282-6707 | sonsa021@umn.edu | linkedin.com/in/mohnish | github.com/mohnish

Education

University of Minnesota Minneapolis, MN
Bachelor of Science in Computer Science *Aug. 2022 – Dec 2025*
Relevant Coursework: Program Design & Development, Machine Architecture, Statistical Regression, ML Optimization, Advanced Programming Principles

Experience

Undergraduate Research Assistant (*GroupLens.org*) Jan 2024 – Present
University of Minnesota, Twin Cities *Minneapolis, MN*
- Wrote code in a team of three in the development of an interactive tool aimed at making virtual meetings more inclusive using Jitsi, React, Sequelize, and Express.js.
- Assisted in developing logic for API calls to enhance interactivity with a chat bot.
- Added endpoints and components with comprehensive unit integration testing.

Undergraduate Teaching Assistant Sep. 2023 – Present
University of Minnesota, Twin Cities *Minneapolis, MN*
- TA for Introduction to Algorithms and Data Structure (Java). Conducted weekly office hours and led 3+ labs, overseeing 30+ students in each session.
- Collaborated with faculty mentors and fellow Teaching Assistants to enhance assessment, lab write-ups, and other educational materials.
- Assisted in the grading process, including midterms, to provide constructive feedback to students and contribute to fair and consistent evaluation practices.

Year Round Student (*algorithmicthinking.org*) June 2021 – May 2022
Program in Algorithmic and Combinatorial Thinking *New Jersey, NY*
- Received a full tuition scholarship for a year-long selective program on mathematical foundations of computer science by Dr. Rajiv Gandhi at Rutgers Camden and UPenn.
- Studied topics in discrete mathematics and explored theoretical and fundamental topics in probability, set theory, advanced permutations and combinations, and linearity of expectation.
- Learned about fields of computer science including computational geometry, cryptography, the probabilistic method, and planar graph coloring from guest speakers.

Summer Student (*AI4ALL*) May 2021 – June 2022
University of Maryland, College Park *College Park, MD*
- Worked on a *research project* on how neural networks can be trained to avoid adversarial attacks.
- Presented the advantages of an adversarially-trained robust model over a standard model to UMD faculty and students.

Projects

Drone Delivery Simulation Model | *C++, TypeScript, Node.js, Docker* Jan 2024 – May 2024
- Collaborated with a teammate in biweekly sprints to develop a data collection model to track drone speed, distance travelled, and delivery time to optimize drone delivery routes.

Leadership

Secretary, Competitive Programming Club (*umncpp.org*) Mar 2024 – Present
- Moderated a Discord community of 700 members, documented detailed meeting minutes, and regularly updated the club's website.
- Trained students in ICPC problem-solving, participated in competitive coding competitions, honed algorithm skills, and practiced on Kattis.

Technical Skills

Languages: Java, Python, C/C++, SQL, JavaScript, HTML/CSS, x86, OCaml, R
Frameworks: React, Node.js,, JUnit, WordPress, GTest Suite
Developer Tools: Git, Docker, Jira, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Libraries: pandas, NumPy, Matplotlib