SUMNIMA 'MIMI' RAI

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🎓 EDUCATION

Colorado School of Mines | Golden, CO **B.S. Dec 2025**

    Major: Computer Science - Data Science Concentration GPA: 3.92

    Minor: Computational and Applied Mathematics (CAM)

    Awards & Honors: C-MAPP Scholar, Dean's List

Grandview High School | Aurora, CO **Aug 2019 - May 2023**

👤 SKILLS

- **Languages**: Python, Java, C++, R, MATLAB, Front End Web Development (Bootstrap, HTML, CSS, Javascript), Back End Web Development (Firebase, MongoDB, PostgreSQL)
- **Technologies**: LaTeX, GitHub, Jupyter Notebook, Adobe Creative Cloud, Roland Versaworks, Blender, Solidworks
- **Other:** Public Speaking, Oral Presentations, Project Management, Collaborative, Adaptable, Organized

🔗 EXPERIENCE

Relevant Coursework **Aug 2024 - Present**

- Machine Learning (DSCI 570), Advanced Data Science (DSCI 503), Algorithms (CSCI 406)
- Advanced Software Engineering (CSCI 370): Collaborating with a team in an Agile environment to develop a greenhouse gas calculator for client Perennial, focusing on data acquisition and preprocessing for accurate environmental impact assessment

Undergraduate Research Assistant **Aug 2024 - Present**

Maughan Lab, Department of Chemistry

- Developing a Python program utilizing Pyfaults for modeling stacking fault disorder in crystalline materials, generating output files for further processing in FAULTS program to refine XRD patterns of crystal systems

💼 EMPLOYMENT HISTORY

Lead Teaching Instructor **Aug 2023 - Present**

Mines DECTech, Department of Computer Science

- Developed 10+ detailed STEM curriculum sets tailored for students in grades 3-10 during academic year and summer camps
- Instructed 6 classes and fostered an inclusive environment that encourages girls to engage in STEM activities, exploring diverse topics in space exploration, robotics, medical devices, game development, and semiconductors

Peer Mentor **Aug 2024 - Present**

Mines NeST Office (New Student and Transition Services)

- Mentored introductory CSM 101 course to orient first year students to university life by introducing students to essential campus resources, promoting involvement in student activities, and supporting academic and personal development

Social Media Specialist **Dec 2023 - Present**

Mines SAIL Office (Student Activities, Involvement & Leadership)

- Photographed over 40 Registered Student Organization (RSO) events, highlighting diverse student activities on campus
- Designed ~50 Instagram posts that have reached 6000+ accounts, developing a supportive online presence to increase engagement for campus initiatives and to elevate participation in various student communities

Lead Teaching Assistant **Jun 2024 - Jul 2024**

Mines Computing For Good

- Managed 4 virtual teams of 15 high school interns to develop impactful projects in education, environmental sustainability
- Implemented personalized weekly sprints and provided extensive support in full-stack web development

🤝 COMMUNITY SERVICE

- **Steel City Codes - 300 hrs:** Instructed 120+ students in Python and Java programming languages, managed a team of 30 volunteers during annual summer camps, designed 4 sets of curriculum with 200 pages of workbooks and 8 coding projects
- **Rocky Mountain MESA - 30 hrs:** Mentor and provide individual guidance to 12 students at Arvada West High School to engineer solutions for the RM MESA National Engineering Design Competition.

🕐 ACTIVITIES AND INTERESTS

- Association for Computing Machinery (ACM), Tau Beta Pi, Mines MakerSociety Media Coordinator, RM MESA Advisor
- Art (oil painting, gouache, graphic illustration), piano, reading