

# IAN GALLOWAY

McFarland, WI • [ian.galloway@mines.sdsmt.edu](mailto:ian.galloway@mines.sdsmt.edu) • 224-857-9166  
Mechanical Engineering

## EDUCATION

---

**South Dakota School of Mines and Technology** • Rapid City, SD • *Expected Graduation: May 2026*  
B.S in Mechanical Engineering • Minor in Computational Statistics • GPA: 3.101  
Treasurer, Formula Club • Drummer, School Jazz Band  
Relevant Coursework: Finite Element Analysis, Numerical Analysis, Linear Algebra, Aerospace Structures, Solid Mechanics

**Prospect High School** • Mount Prospect, IL • GPA: 3.56

*Sept 2018 to June 2022*

## SKILLS

---

- Programming and Simulation: Python, MatLab, Ansys, Bash, Git, SolidWorks, Inventor
- Fabrication: Tig welding (specializing in pipe coping and joint prep), mechanical assembly
- Soft Skills: Team communication, adaptability, self-discipline, creative problem-solving

## WORK EXPERIENCE

---

**Undergraduate Research Assistant** • SDSMT, Prof. Jha • Rapid City, SD • *Nov 2024 to Current*

Research in applying neural operators to computationally demanding problems of parameter estimation and topology optimization. Focus on topology optimization of magnetic soft materials. Experience in using python to set up environments and meshes to solve topology optimization problems using SIMP method and fine-tuning parameters to achieve a solution.

**Student Resident Firefighter** • Rapid Valley VFD • Rapid Valley, SD • *Nov 2024 to Current*

Certified structural and wildland firefighter, trained in emergency response, communication, and teamwork. On-call responder for medical and fire emergencies. Position supports academic studies by providing housing and allowing for focus on studies while serving the community.

**Wildland Firefighter** • South Dakota State • Rapid City, SD • *May 2024 to Nov 2024*

Consistently trained to learn and become proficient in wildland fire suppression tactics. Worked on many long, stressful fires where communication and execution of plans with different groups was imperative.

**Volunteer Firefighter** • Box Elder VFD • Box Elder, SD • *Oct 2023 to Nov 2024*

Took classes to become certified in Firefighter I, II, Wildland Fire, and Hazmat Operations by the State of South Dakota. Help train new personnel while developing new ideas and projects to improve the fire station, such as designing and implementing a new hose pack for certain situations.

**Bar Back** • Saloon No. 10 • Deadwood, SD • *Dec 2022 to May 2024*

Maintained, tracked, and managed inventory, assisted bartenders, and took care of any projects or tasks around the workplace, while working late and busy nights.

**Sushi Chef** • WildFish Sushi • Arlington Heights, IL • *Sep 2021 to Aug 2022*

Learned and displayed advanced culinary techniques at a high level. Maintained, delegated, and prepared incoming orders while operating at a fast pace while maintaining quality and safety.

**Cook Shift Leader** • Panda Express • Mount Prospect, IL • *Oct 2019 to Aug 2021*

Managed kitchen inventory, on shift staff, and trained new employees. Performed cooking duties to high standard while under high demand and stress. Adhered to food and workplace safety protocols.

## PASSIONS AND ACCOMPLISHMENTS

---

- Awarded Research Experiences for Undergraduates grant from SDSMT, funded by Alumni.
- Accomplished rock climber and outdoor enthusiast, having climbed Devils Tower, several Colorado mountains, and completed various backpacking trips of up to two weeks long.
- Passionate musician, being the drumline section leader in highschool, playing in many bands, and competing in various competitions.
- Eagle Scout

## REFERENCES

---

**Dr. Prashant Jha, Ph.D.**

Assistant Professor, Mechanical Engineering  
South Dakota School of Mines and Technology  
Email: prashant.jha@sdsmt.edu

**Dr. Daniel Rederth, Ph.D.**

Senior Lecturer, Mechanical Engineering  
South Dakota School of Mines and Technology  
Email: daniel.rederth@sdsmt.edu