



## 2024 HAUBER FELLOWS

*Using combinatorial frequency approaches to determine suitability of machine learning datasets*

Hauber Fellow: Fenrir Badorf

Faculty Mentor: Dr. Megan Olsen, Computer Science

*Construction of Hadamard Matrices*

Hauber Fellow: Leiyla Brent

Faculty Mentor: Dr. Sudeshna Basu, Mathematics and Statistics

*Exploring the Capabilities of Various Large Language Models to Solve Complex Programming Problems*

Hauber Fellow: Lyric Campbell

Faculty Mentor: Dr. Nguyen Ho, Computer Science

*Comparison of passive and active temperature control approaches for food storage and transport*

Hauber Fellow: Dylan Covington

Faculty Mentor: Dr. Suzanne Keilson, Engineering

*Graph Coloring with Restricted Colors*

Hauber Fellow: Alejandro Escorcía

Faculty Mentor: Dr. Michael Knapp, Mathematics and Statistics

*Perception-Based Road Hazard Detection System for Enhanced Vehicle Safety*

Hauber Fellow: Silas Green

Faculty Mentor: Dr. Hoyeon Kim, Engineering

*Automation and Machine Learning: How a Robot Can Conduct Experiments Using Gaussian Process*

Hauber Fellow: Miller Gruen

Faculty Mentor: Dr. Mary Lowe, Physics

*Improving Loop Performance Through Parallelization: A Comparative Analysis of Retiming and Loop Unrolling*

Hauber Fellow: Emma Heiser

Faculty Mentor: Dr. Hoang Bui, Computer Science



## 2024 HAUBER FELLOWS

*The development of methods to detect the presence of caffeine and nicotine in urban streams*

Hauber Fellow: Skylar Katchko

Faculty Mentor: Dr. Elizabeth Dahl, Chemistry and Biochemistry

*Investigating the role of NPAS4 in cognitive outcome in aging*

Hauber Fellow: Gwenyth Lowery

Faculty Mentor: Dr. Craig Myrum, Biology

*Numerical Approximations of Multiphysics Flows*

Hauber Fellow: Joshua Manset

Faculty Mentor: Dr. Prince Chidyagwai

*The development of methods to detect the presence of caffeine and nicotine in urban streams*

Hauber Fellow: Clare Noone

Faculty Mentor: Dr. Elizabeth Dahl, Chemistry and Biochemistry

*Efficient Electromagnetic Material Characterization: A Comparative Study of Metaheuristic Optimization Algorithms*

Hauber Fellow: William Sears

Faculty Mentor: Dr. Raenita Fenner, Engineering

*The Relationship between Cognitive Outcome, Sleep, & Aging: Evaluating the Fischer-344 Rat Model*

Hauber Fellow: Brianne Smith

Faculty Mentor: Dr. Craig Myrum, Biology

*The Relationship between Cognitive Outcome, Sleep, & Aging: Evaluating the Fischer-344 Rat Model*

Hauber Fellow: Bradley Stinnette

Faculty Mentor: Dr. Craig Myrum, Biology

*Automation and Machine Learning: How a Robot Can Conduct Experiments Using Gaussian Process*

Hauber Fellow: Adrian Timin

Faculty Mentor: Dr. Mary Lowe, Physics



## 2024 HAUBER FELLOWS

*Using combinatorial frequency approaches to determine suitability of machine learning datasets*

Hauber Fellow: Hans van Lierop

Faculty Mentor: Dr. Megan Olsen, Computer Science

*Enhancing Data Synthesis for Privacy-Preserving In Recommender System*

Hauber Fellow: Christian Walsh

Faculty Mentor: Dr. Eric Cui, Computer Science

*Investigation of Turbulence Model Impact on Numerical Simulation of Savonius Vertical Axis Wind Turbines*

Hauber Fellow: Brady Westerberg

Faculty Mentor: Dr. Robert Bailey, Engineering

*Evaluation of SLAM for Static and Dynamic Environments: Establishing a Benchmark in Autonomous Mobile Robotics Research*

Hauber Fellow: Ryan Ziegler

Faculty Mentor: Drs. David Hoe and Hoyeon Kim, Engineering