

Silas Andrews

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Programming Languages: Python, Java, C, C++, Matlab, \LaTeX

Tech: Microsoft Office Suite, ArcGIS Pro, Arduino

Hobbies: Puzzles and Logic Problems, Mountain Biking, Rock Climbing, Hiking, Skiing, Tabletop Roleplaying Games, Cocktail Mixing

Certifications: Wilderness First Aid, OSHA 10-Hour, Montana Alcohol Seller-Server

EDUCATION

**BS. Physics with Interdisciplinary Concentration in Climate Science
Minors in Math and Computer Science | Honors Baccalaureate | GPA: 3.76**

December 2022
Bozeman, MT

MONTANA STATE UNIVERSITY

Notable Coursework: Intro to GIS; Ecological Responses to Climate Change; Computational Physics and Biology; Lab Electronics; Design Thinking for Community

**Field Course: Cycle the Rockies
Energy Systems and Climate Change in Montana**

Summer 2021
Missoula, MT

WILD ROCKIES FIELD INSTITUTE

WORK EXPERIENCE

DEVIL'S TOBOGGAN

Bozeman, MT | June 2022 - Present

BARTENDER

- Use interpersonal skills to provide excellent customer service.
- Memorize recipe list for menu cocktails and use creative thinking to craft off-menu drinks.
- Engage in team problem solving under pressure.

MONTANA STATE UNIVERSITY | DEPARTMENT OF PHYSICS
PEER MENTOR

Bozeman, MT | Feb 2022 - May 2023

- Distribute physics practice material for student groups and assist in improving conceptual understanding.
- Focus on Physics I (Classical Mechanics) with Calculus curriculum material.

WILD ROCKIES FIELD INSTITUTE

Bozeman, MT | Dec 2021 - May 2023

STUDENT AMBASSADOR FOR MSU

- Provide outreach and information for students interested in Wild Rockies Field Institute courses.
- Engage with students by Visiting classes, attending and hosting information sessions, and writing blog posts for the WRFI Instagram page.

WILD ROCKIES FIELD INSTITUTE

Bozeman, MT | June 2022 - July 2022

FIELD COURSE INTERN

- Assist with course instruction and logistics for Cycle the Rockies 2022. Demonstrate knowledge of energy and sustainability issues and government policies.
- Review student blog drafts and provide constructive feedback on work.

MONTANA STATE UNIVERSITY | OFFICE OF RESEARCH COMPLIANCE
RADIATION SAFETY - HEALTH PHYSICS TECHNICIAN

Bozeman, MT | Feb 2019 - May 2022

- Assist the Radiation Safety Officer in tasks related to the radiation safety program on campus by performing lab contamination surveys, radioactive materials package check-in and delivery, decommissioning surveys, liquid scintillation analysis, geiger meter calibrations, and various clerical activities.
- Engage in both procedural duties and problem solving for labs and waste services. Work independently, adhere to deadlines and manage multiple projects simultaneously.

MONTANA STATE UNIVERSITY | DEPARTMENT OF PHYSICS
TEACHING ASSISTANT (TA)

Bozeman, MT | Aug 2021 - Dec 2021

- Teach and grade lab section for Physics II with Calculus.

- Review lab procedures and supervise student experience in electricity and magnetism experiments.
- Proctor and grade course examinations.

EXPRESS EMPLOYMENT PROFESSIONALS

Great Falls, MT | June 2018 - Aug 2018

TEMPORARY STAFF

Employed at the following companies by Express Employment Professionals in alphabetical order:

- Blue Diamond Sprinklers – Sprinkler system installation in home yards.
- Carroll Construction – Assist in laying down base flooring and site cleanup.
- Cheney Brothers Company – Shelving renovations at Smith's Food and Drug.
- Dayspring Restoration – Restore home water damage and assist in demolition.
- Greyn Scale Company – Concrete base construction for a train car scale.
- Jackson Contractor Company – Site cleanup at University of Providence, Great Falls.
- Montana Egg LLC Wilcox Farms – Assembly line methods with egg packaging.

ROLES

MONTANA STATE UNIVERSITY | SOCIETY OF PHYSICS STUDENTS

Bozeman, MT | Aug 2018 – Dec 2022

SECRETARY 2019, VICE PRESIDENT 2020, PRESIDENT 2021, PRESIDENT 2022

Student club focused on the physics community of MSU. Provides opportunities for social engagement and networking for students interested in physics.

- President - Head of program management. Organize and Schedule weekly officer meetings and club meetings. Maintain club leadership structure and lead officer team's efforts to provide a fun, welcoming environment for members. Maintain club services through COVID-19 pandemic and encourage revival of club operations as restrictions are removed. Requires consistency and reliability.
- Vice President - Assist President in necessary duties. Encourage member participation in club fundraisers and volunteer opportunities. Maintain club services in accordance to COVID-19 social distancing guidelines.
- Secretary - Write detail-oriented records of officer and general meetings. Provide records to club members for review of club activities and decisions.

MONTANA STATE UNIVERSITY | SPIRIT OF THE WEST MARCHING BAND Bozeman, MT | Aug 2018 – Mar 2023

FIELD CAPTAIN 2019, MUSIC CAPTAIN 2020, FIELD CAPTAIN 2021, DRUM MAJOR 2022

Marching Band program at MSU that performs for football games, pep rallies, MSU debut events, and more. Performed in Piccolo section for four seasons. Drum Major for last season. Also member of spring Pep band.

- Drum Major - Lead band camp instructional activities and oversee progress. Conduct band during rehearsals and performances. Act as face of the band and represent the group's attitude and values. Make quick decisions based on experience and understanding of current season goals. Oversee program management for travel.
- Field Captain - Assist in field-related instruction during band camp and develop performance choreography. Work closely with Drum Majors to refine performances. Provide on-field vantage point for drill corrections.
- Woodwind Music Captain - Develop and conduct part checks to encourage musical progress from the band. Engage with woodwind sections and help lead section rehearsals so that students can be successful.

RESEARCH

DATA ANALYSIS OF ELECTRON MICROBURSTS

SPRING 2020, FALL 2020, SPRING 2022

SAMPLE LAB, MSU DEPT. OF PHYSICS

Data analysis of electron microbursts in the magnetosphere from the Solar Anomalous and Magnetospheric Particle Explorer (SAMPEX) satellite and its instrument, the Heavy Ion Large Telescope (HILT). Investigate roles of whistler mode chorus and the South Atlantic anomaly in microburst processes. Primarily using Python

Presentations:

- Society of Physics Students Undergraduate Colloquium November 2021
- Montana State University Student Research Celebration April 2022
- Society of Physics Students Undergraduate Colloquium September 2022