

Ben Miller

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EDUCATION

Montana State University

Aug. 2019 – Expected May 2023

Bachelor of Science in Computer Science, Professional Option, Honors, GPA: 3.95

Bozeman, MT

Advanced Algorithm Topics | Computer/Robot Vision | Data Mining | Software Engineering
Multidisc Engineering Design | Systems Administration | Computer Systems | Web Design
Intermediate Statistics | Intro to Linear Algebra | Calculus I and II | Discrete Structures

PROJECTS

Audalign | *Python, Git, GitHub Actions, NumPy, Scipy, Pydub*

Feb. 2020 – Present

- Python package for aligning a collection of recordings of the same event
- Published to PyPI and created a CI/CD workflow with GitHub Actions
- Uses noise removal and a variety of fingerprinting and visual alignment techniques

TradeSuite | *Python, MongoDB, Machine Learning, PDF Email Updates*

Dec. 2020 – Present

- Retrieves data from and performs transactions with the Robinhood API
- Mainly focused on value investing but also implements various other techniques
- Evaluates new stocks, analyses a wishlist, and tests techniques with paper trades

Pi keyboard | *Python, ssh, Raspberry Pi, Cron, Git*

June 2020 – July 2020

- Set up a Raspberry Pi Zero W as a USB keyboard
- Can read text files or take user input and send as keyboard input to PC
- Used Crontab to turn on my PC daily

WORK EXPERIENCE

Undergraduate Research Assistant

February 2020 – Present

Montana State University – Part-time

Bozeman, MT

- Design and create an audio fingerprinting system, Audalign, to align forensic audio
- Work with Dr Maher and other research assistants to plan and find solutions
- Research, present, and compile our findings for publishing in the AES Journal

Farm and Fencing Crew Foreman

May 2015 – Present

Miller Farms – Full-time Seasonal

Glasgow, MT

- Direct three to five employees and maintain safety standards and efficiency
- Manage design and procedures for projects and plan logistical maneuvers
- Build and maintain cattle fences, manage cows, fix and build corals, and perform various farm duties

ACHIEVEMENTS AND INTELLECTUAL CONTRIBUTIONS

MSU Presidential Scholarship | MUS Honors Scholarship | Local NHS Scholarship
MSU President's List Spring and Fall 2020 | MSU Dean's List Fall 2019 and Spring 2021

Miller, B., Robinson, F., Maher, R. (2021) Forensic Handling of User Generated Audio Recordings.
Audio Engineering Society Conference: 2021 AES International Conference on Audio Forensics

TECHNICAL SKILLS

Languages: Terraform, Python, Rust, Java, Bash, C, C++, HTML/CSS, R

Developer Tools: Git, SSH, GitHub, Pytest, Linux, Jekyll, Raspberry Pi, AWS, GCP

General: Audio Systems, Welding (Arc, Wire), Soldering, Roofing