# Kaleb Ducharme

Student

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## Research Interests

I have been in a biological sciences based major, but through lab experiences I have gained knowledge in some data science techniques. I plan to advance my knowledge further through research in bioinformatics, geonomics, and similar areas.

## Education

**University of New Hampshire** *Durham, New Hampshire*

Bachelor of Science, Neuroscience and Behavior -Current GPA: 3.97 *Expected May 2023*

- Relevant Coursework: Biostatistics 1, General Chemistry, Organic Chemistry, Biochemistry, Principles of Genetics, Human Genetics, Intro to Computer Science (Python and Java), Data Science for Life Sciences (in progress), Endocrinology (in progress)

## Awards

**Presidential Scholarship** *2019-2022*

University of New Hampshire *$5,000/year*

## Research Experience

### Affect, Cognition, & Computation Lab

*Research Assistant for Credit* Spring Semester 2022
Advisor: Dr. Caitlyn Mills
Ran participants through virtual reality experiments to assess various paradigms of mind wandering. Cleaned the raw data output of the eye-tracking hardware and survey software using Python and R. Analyzed the cleaned data using R and presented initial results.

### Visiual Perception Lab

*Volunteer Research Assistant* Fall Semester 2022 - Present
Advisor: Dr. Omer Daglar Tanrikulu
Currently in the early stages of designing ensemble perception experiments in a virtual reality setting. Advancing knowledge in Python and learning to use the Vizard software (Python based VR development tool) to create the VR experiment.

## Presentations

Bauer, W., **Ducharme, K.**, Hall, A., Priest, J., Wittemann, A., Wong, A., Smith, S., & Caitlyn, M. (2022, April). *Freely moving thought's relationship with testing ability*. Poster presented at undergraduate research conference, university of new hampshire.

## Technical Skills

### Complutational

Intermediate Knowledge in Python and Java, R, Microsoft Suite

### Wet Lab

Spectrophotometry, Recombinant protein expression in *E. coli*, Benchling for virtual plasmid digestions, Purification of target protein using AKTA start chromatography system (Affinity, gel filtration), SDS-Page, Analysis of active sites of proteins in Chimera