



Newcomers Day

Andrew John Smith

Wednesday, May 13th, 2026



MICHIGAN STATE
UNIVERSITY



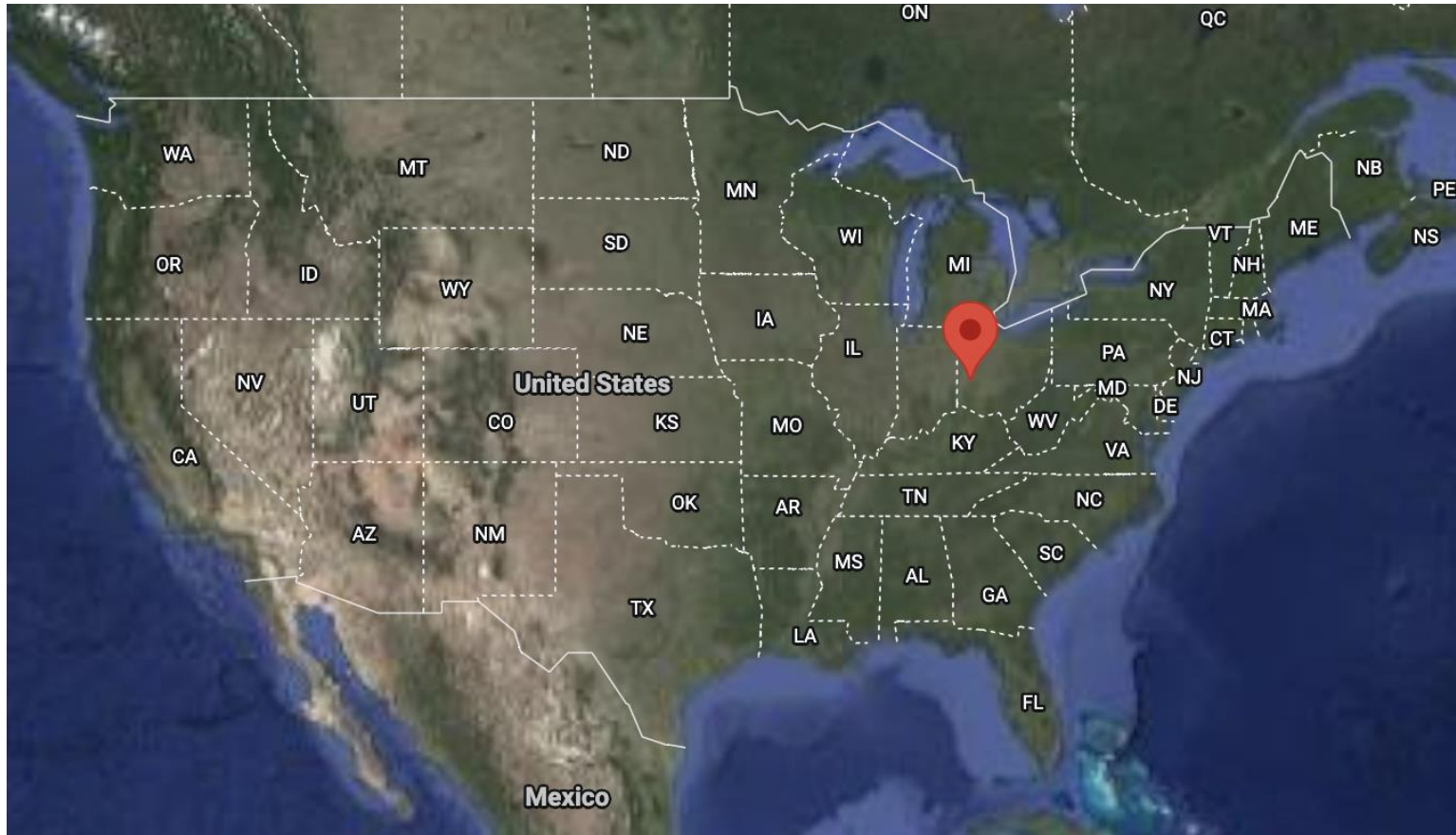
U.S. DEPARTMENT OF
ENERGY

Office of
Science

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Who am I?

- I am from Western Ohio, USA



Who am I?

- I am from Western Ohio, USA

Ohio

adjective

weird, awkward, cringeworthy



What does *Ohio* mean?

Ohio is used (mostly on the Internet) to describe something that is weird, awkward, cringeworthy, or otherwise undesirable or bad in some way. It can also be used to mean "boring" or "foolish."

Source: Merriam-Webster



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Who am I?

- I am from Western Ohio, USA
- 4th year Physics PhD Student at Michigan State University/ The Facility for Rare Isotope Beams



Why Am I here?

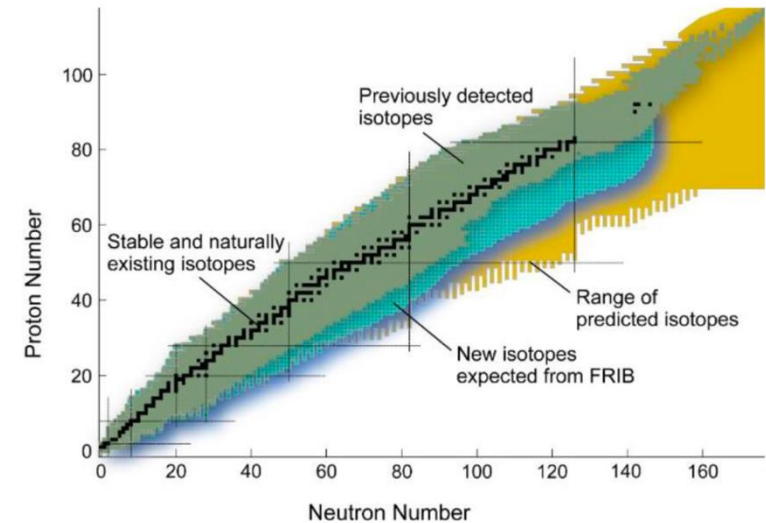
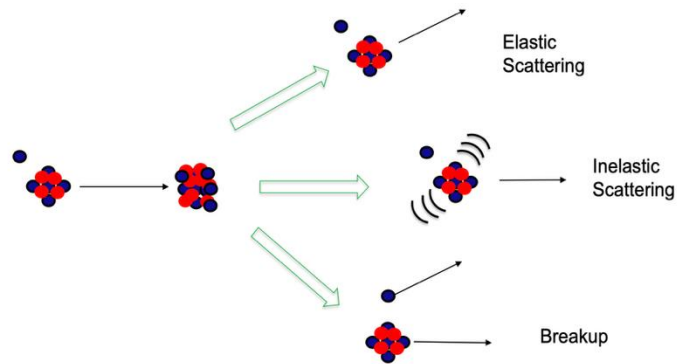
- My PhD adviser, Chloë Hebborn, moved to a position at IJC Lab in January 2025
- I came to collaborate with Chloë in May 2025 planning to stay only until August 2025
- I received the Chateaubriand Fellowship in Summer of 2025, which has allowed me to collaborate with my adviser in France until August of 2026.



What do I work on?

I am a low energy nuclear theorist

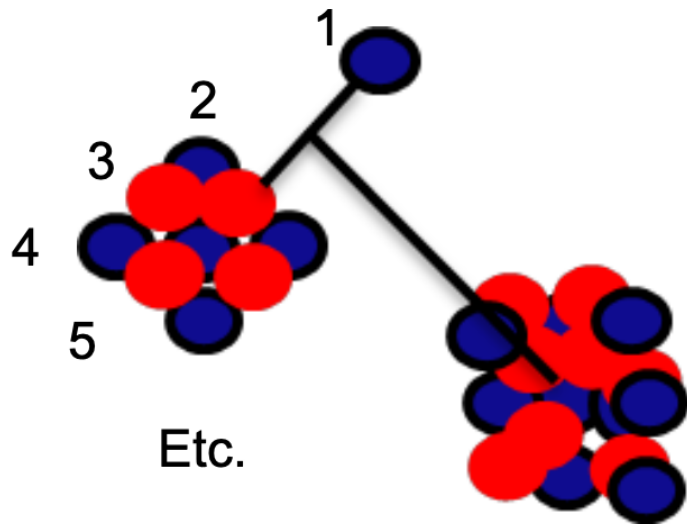
- A goal low energy nuclear physics is to arrive at a **predictive understanding of the nuclear structure properties across the nuclear landscape**
- Understanding of nuclear structure can be used in theoretical models describing
 - The **life cycles of stars**
 - Formation of **chemical elements**



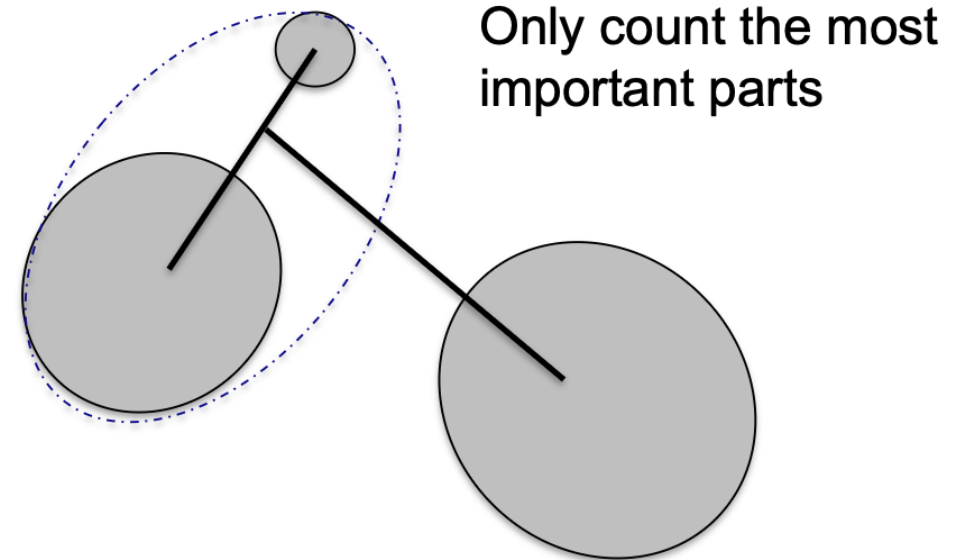
From the 2022 FRIB Overview

- Since exotic nuclei are unstable much of nuclear structure is studied through nuclear reactions

As a reaction theorist what do I work on?



So we simplify



But this is impossible to solve!

What do I work on?

I am part of the Few Body Group At Michigan State University

- Research interests
 - Nuclear reactions
 - Optical potentials for nuclear reactions
 - Bayesian statistics and uncertainty quantification in theoretical nuclear physics
 - Collaboration between theory and experiment

If my research sounds interesting check these out!



Uncertainty quantification in (p, n) reactions. Phys. Rev. C, 110:034602, (2024).



Matter radii from interaction cross sections using microscopic nuclear densities. arXiv, 2603.18862, (2026)



What do I work on : Side hustles



Scientist/Dancer in *Of Equal Place:
Isotopes In Motion*



Production assistant & score
composer for
Rare Connections



Tour Guide at FRIB

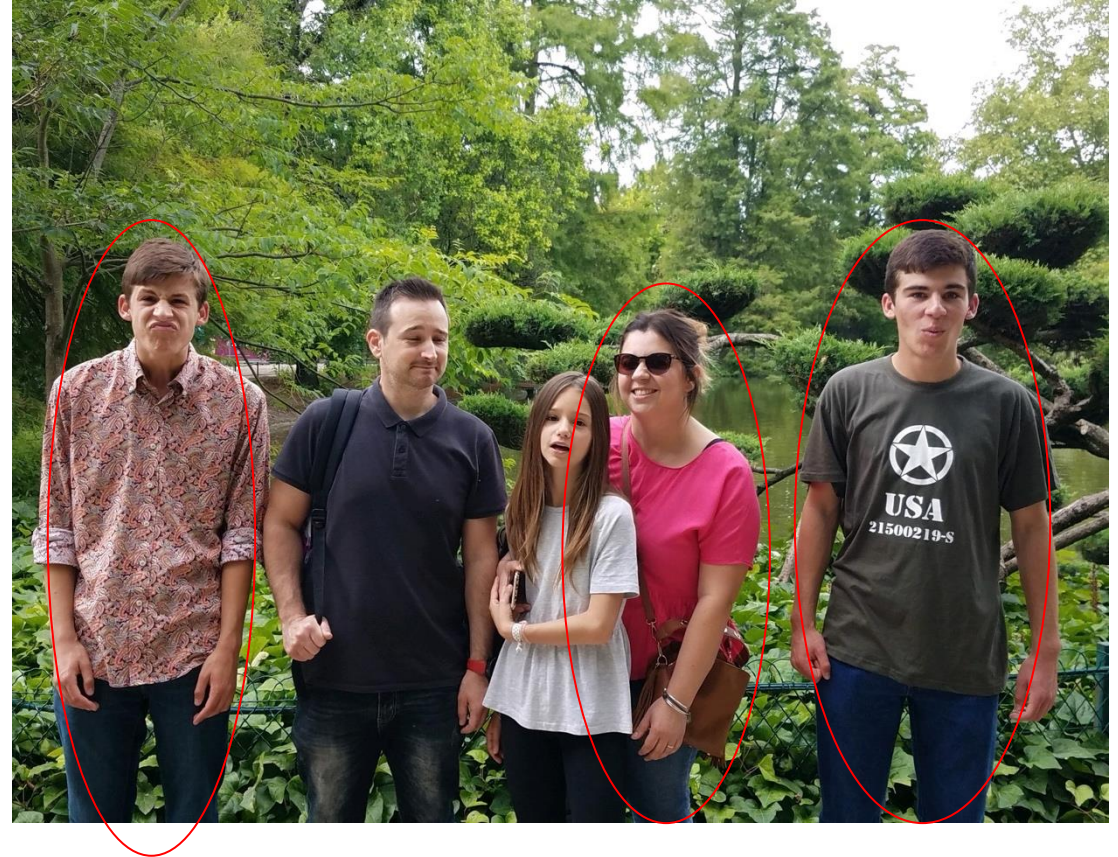
Other Stuff About Me

- My favorite color is blue



Other Stuff About Me

- My favorite color is blue
- I have a twin brother and an older sister



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- **Hobbies**
 - Playing guitar -> music production



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- **Hobbies**
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 - Reading and Journaling



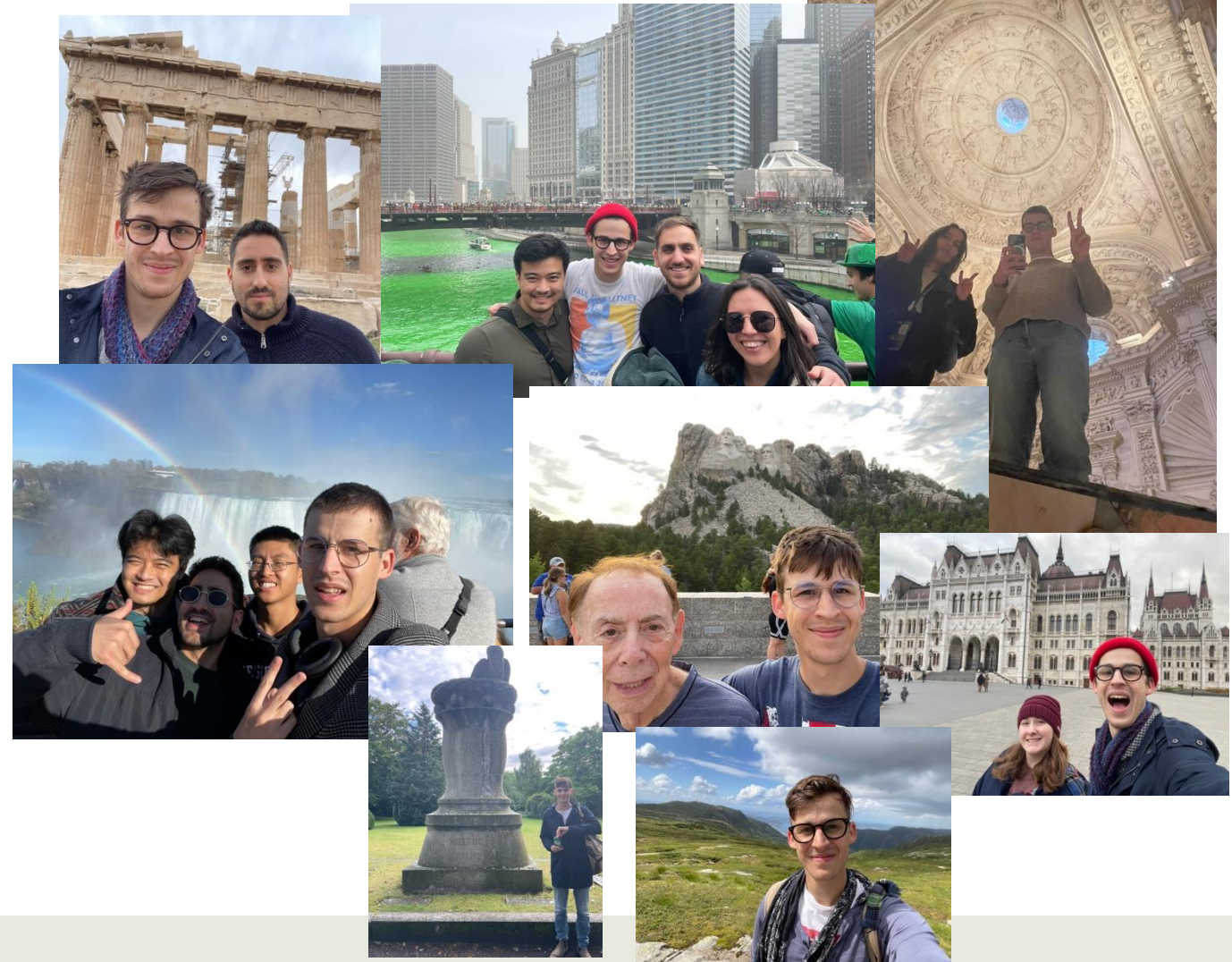
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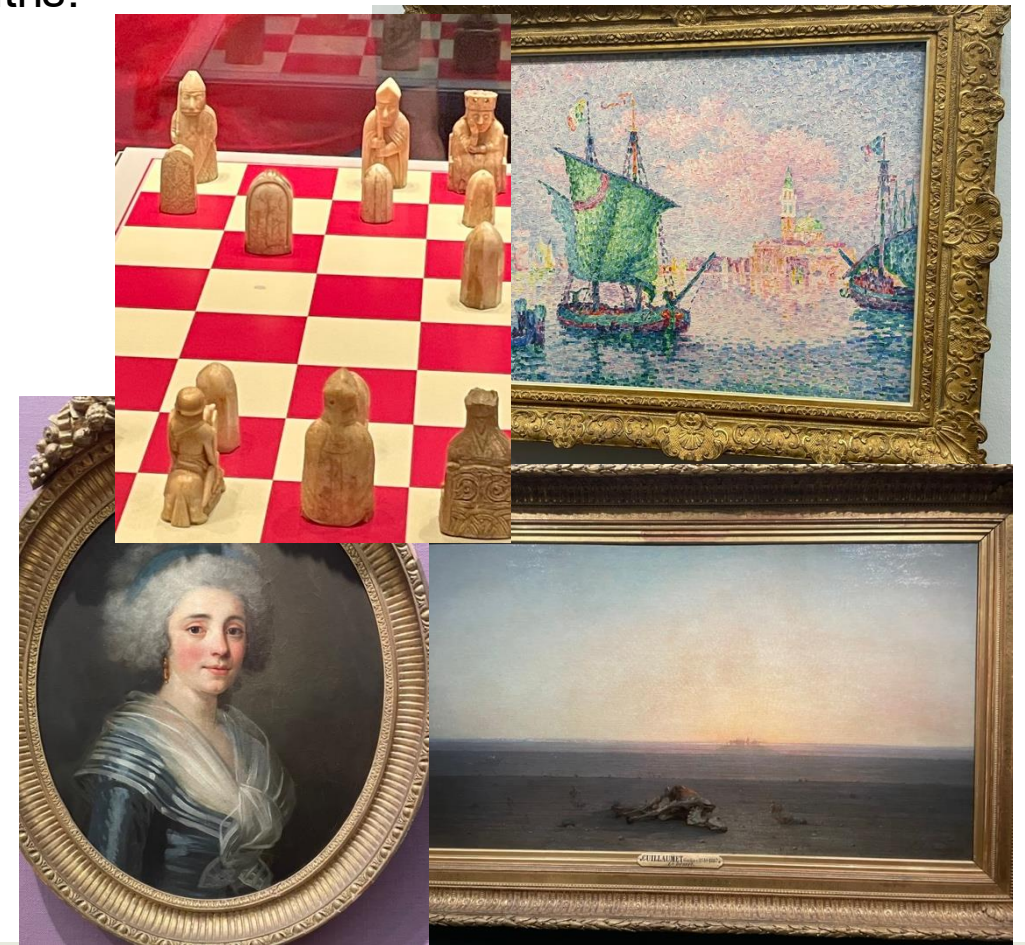
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■ Hobbies

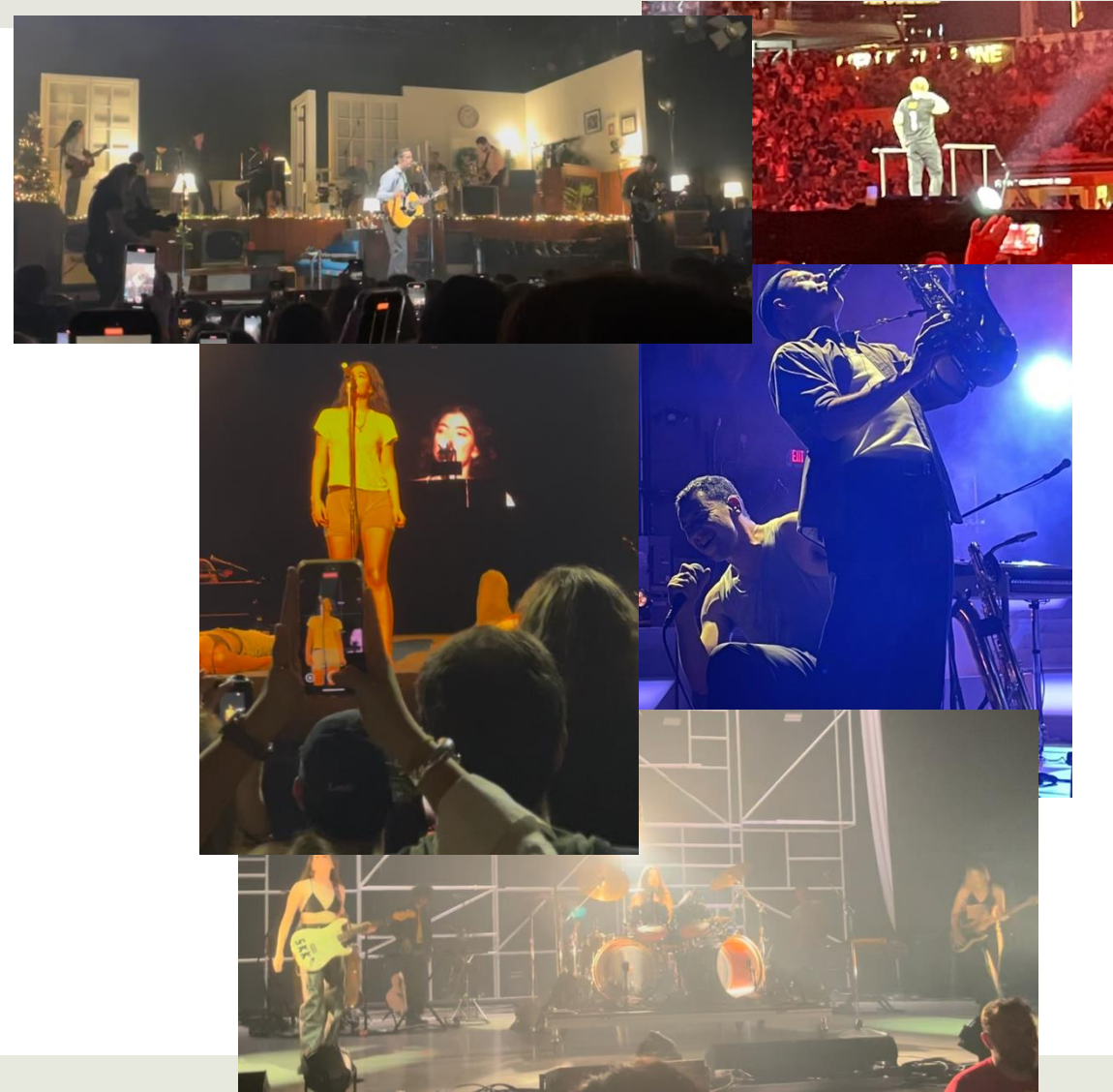
- Playing guitar -> music production
- Reading and Journaling
- Running
- Travelling
- Going to art museums

I have been to the Louvre 12 times in 8 months!



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 - Playing guitar -> music production
 - Reading and Journaling
 - Running
 - Travelling
 - Going to art museums
 - Live Music



Other Stuff About Me

■ Top five movies

- Indiana Jones and The Last Crusade
- The Life Aquatic with Steve Zissou
- Rush Hour 2
- Clueless
- Bottoms

■ Top four albums

- Melodrama - Lorde
- I like it when you sleep for you are so beautiful yet so unaware of it –The 1975
- Swimming – Mac Miller
- Definitely Maybe - Oasis

■ Last four books I read

- Post Office – Charles Bukowski
- Pride and Prejudice – Jane Austin
- “The Ripliad” – Patrica Highsmith
- The Last Continent – Terry Pratchett

■ Special Interests

- Archeology/ Anthropology
- Film production
- Bad medieval art
- Art History
- Werner Herzog
- Greek Slang
- Queer Historiography



