

## Kendall J. Mehling

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423 994-1834

### EDUCATION

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#### UNIVERSITY OF CHICAGO

*Bachelor of Arts in Physics (Honors) and Mathematics*

Chicago, IL

Expected, June 2020

- GPA: 3.7, GRE Quantitative: 168, GRE Verbal: 165, ACT: 35
- Relevant Courses: Computer Science, Quantum Mechanics I/II, Experimental Physics I-III

### WORK EXPERIENCE

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#### UNIVERSITY OF CHICAGO PHYSICS DEPARTMENT

*Particle Physics Research Assistant*

Chicago, IL

January 2019 – Present

- Simulated kaon decays in search of theoretical dark photon using GEANT4 package
- Wrote analysis code isolating decay events of interest and compared them to background processes
- Implemented deep learning algorithms to assist neutron discrimination to optimize background events

#### UNIVERSITY OF CHICAGO PHYSICS REU

*Research Assistant*

Chicago, IL

June 2019 – August 2019

- Investigated the photon inefficiency of KOTO E14 detector over a range of gamma energies
- Used GEANT4 to simulate photon decays and analysis packages to determine appropriate timing conditions for veto detectors
- Presented research finding to colleagues and Chicago faculty at physics symposium

#### UNIVERSITY OF CHICAGO GEOPHYSICS DEPARTMENT

*Geophysics Researcher*

Chicago, IL

June 2018 – September 2019

- Explored applicability of Rooth models to ocean circulation and ongoing stratification
- Analyzed computational models and their stability using Midway supercomputer clusters
- Applied the MITgcm to construct climatological experiments to investigate ongoing climate change

#### YERKES OBSERVATORY

*IDATA Undergraduate Researcher*

Williams Bay, WI

June 2017 – August 2019

- Developed accessible physics lesson plans for classrooms across the United States
- Collected data in Chicagoland area to produce accessible imaging software for high school students
- Implemented education research to engage blind and visually impaired students with science education

### EXTRACURRICULAR ACTIVITIES

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#### METROSQUASH

*Tutor*

Chicago, IL

September 2016 – May 2019

- Assisted Chicagoland students with mathematics and science work at a local afterschool center

### HONORS

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- QuestBridge Scholar: recipient of fully funded undergraduate education at the University of Chicago
- UCISTEM Research Grant: awarded funds for STEM summer research
- Odyssey Scholar: member of UC network for first generation and low-income students

### SKILLS AND INTERESTS

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**Computing:** Python, C++, MATLAB, R, Linux, Windows, Microsoft Office, machine learning

**Interests:** Triathlon, chess, rock climbing, traveling