# Glenn Dusing

## Contact

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## Education

**University of Illinois at Chicago**
Aug 2019 - May 2022
Honors College
Degree (B.S.) in Engineering Physics

## Senior Design Project

- Collaboration with NASA JPL and Arizona State University to construct a rover for the Psyche mission
- Responsible for LiDAR SLAM programming on Jetson Nano

## Programming Languages

- Python
- C++
- HTML
-JavaScript
- CSS
- Vue.Js
- ROOT (CERN) Compiler

## Awards

**Liberal Arts and Sciences Undergraduate Research Initiative (LASURI):**
**Fall 2020 and Spring 2021**
Undergraduate award in the College of Liberal Arts and Sciences to the students working on research with a faculty member

**UIContest:**
**Spring 2020**
Undergraduate award within the Physics Department designed to enhance educational experiences of students conducting research

## Work Experience

**PEER LEADER AT MATH AND SCIENCE LEARNING CENTER, UIC | 2019 - Present**

- Coordination with course professors and classroom assistance for physics courses PHYS 142 (General Physics II) and PHYS 101 (Active Learning of the Physical World)
- Holding of office hours outside of class times to further support and assist student learning
- Holding review sessions for students outside of class time

**COMPUTER SCIENCE INTERN, MONTEL TECNOLOGIES | Summer 2019**

- Computer aided designusing Fusion360
- Front-end development using HTML, CSS, and Javascript, in Vue.JS
- Data mining and image annotation for machine learning

## Academic Work

**Auburn University CASE REU**

- Under guidance of Dr. Christopher Harris, testing runtimes and top-1 and top-5 performances of Googlenet, Alexnet, and Resnet-18 on the Nvidia Jetson Nano 2GB embedded system with ILSVRC-2012 dataset
- Transfer learn Googlenet to the CIFAR-10 dataset
- Use of PyTorch and Tensorflow with python

**University of Illinois at Chicago**

- Application of traditional data analysis and machine learning for the CMS experiment at CERN to study resonance signatures of the Z and Higgs Boson
- All algorithms written in C++ and python using the ROOT compiler developed by CERN
- Working closely with Dr. Corrinne Mills, postdoctoral researchers, and graduate students

**Illinois State University**

- Investigation of quantum mechanical models (Path Integral Quantum Trajectory) using computational methods in Fortran
- Presentation of research at ISAAPT fall 2018 and spring 2019 meetings (Illinois Section of the American Association for Physics Teachers)
- Presentation of research at Illinois State University Undergraduate Research Symposium in spring 2019
- Presentation of research at Department of Atomic, Molecular, and Optical Physics annual meeting 2019
- Working closely with professor Dr. Allison Harris and other undergraduate students