

# PETER G. HOTVEDT

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## EDUCATION

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**University of Michigan**  
Ph.D. Nuclear Engineering

*Ann Arbor, Michigan*  
*August 2021 - Present*

**University of Wisconsin - Madison**  
B.S. Nuclear Engineering - Radiation Sciences Track

*Madison, Wisconsin*  
*September 2016 - December 2020*

Additional Major in Mathematics - Applied Track

*September 2016 - December 2020*

Certificate in Physics

*September 2016 - December 2020*

**Zhejiang University**  
Study Abroad

*Hangzhou, China*  
*May 2018 - July 2018*

## PROJECTS AND RESEARCH

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**Topological Analysis of Ventilation Defect Percentage in Lungs** *September 2018 - July 2021*  
Undergraduate Research Project

- Investigated various metrics from MRI and CT images, related to the lung on a whole-lung, lobar, and sub-lobar level.
- Medical image analysis, including segmentation and filtering, used to directly locate defects in the two different imaging systems.
- Image Segmentation done with MATLAB, and statistical analysis done in RStudio.

**Molybdenum-99 Producing Reactor Design**  
Senior Design Project

*January 2020 - May 2020*

- Designed a subcritical Uranium-235 target based reactor to produce enough 6-day Curies of Molybdenum-99 for the UW Hospital System.
- Design was created primarily with MCNP6.2 and MATLAB.

## LEADERSHIP

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**American Nuclear Society**  
Student Sections Committee Member

*June 2020 - Present*

**Nuclear Engineering Student Delegation**  
2021 Co-Vice Chair

*December 2020 - Present*

2020 Delegation Member

*June 2020 - November 2020*

**Nuclear Engineering / Engineering Physics Student Advisory Committee**  
Undergraduate Chair

*April 2019 - December 2020*

**American Nuclear Society - U.W. Madison Student Section**  
Chapter President

*May 2019 - May 2020*

Governor A - Local Section Outreach Coordinator

*January 2019 - May 2019*

## **Dead Mathematician's Society - U.W. Math Club**

President

*May 2019 - May 2020*

Vice President

*May 2018 - May 2019*

## **PRESENTATIONS**

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### **2019 American Nuclear Society Winter Meeting**

*Washington, DC*

Validation of Quantitative Air-Trapping on CT using Ventilation Imaging  
on Hyperpolarized Gas MRI

*November 2019*

## **WORK EXPERIENCE**

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### **Proceum PVT. Ltd.**

*Hyderabad, India*

Medical Voiceover Artist

*September 2020 - July 2021*

- Professional voiceover artist for a technical eLearning video series project for undergraduate medical students.
- Medical scripts covering many medical school topics were read in home recording booth, edited with Adobe Audition, and sent back to be synced up to videos for the company's media sources.

### **UW Carbone Cancer Center**

*Madison, Wisconsin*

Student Intern

*October 2017 - December 2020*

- In-office student assistant for the internal auditing group.
- Internal knowledge base was updated through learned knowledge of HTML, and medical reports were categorized and logged accordingly.

### **United States Census Bureau**

*Minneapolis, Minnesota*

Census Enumerator

*August 2020 - October 2020*

- Door-to-door enumerator for the greater Minneapolis area, focusing particularly on North Minneapolis suburbs
- Enumerated population by reading and communicating with government technology in both English and Spanish as needed.

## **PROFESSIONAL ORGANIZATION MEMBERSHIP**

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2017 - Present   **Student Member**   American Nuclear Society