# Matthew Durbin, Ph.D. Candidate

▼ The Pennsylvania State University, Department of Nuclear Engineering

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#### **Education**

2013 – 2017 **Solution B.S. Physics, The University of Texas at Austin**Department of Physics

#### Experience

2017 - · · · · **S** Graduate Assistant, The Pennsylvania State University

Ken and Mary Alice Lindquist Department of Nuclear Engineering

Research: Radiation detection and machine learning applications for nuclear safeguards and security

Teaching Assistant: Radiation Detection and Measurements Laboratory Course

Nuclear Engineering Teaching Laboratory

Research: Radiation detection and nuclear forensics

Teaching Assistant: Health Physics Laboratory Course

Summer 2016 **Medical Physics Intern, The University of Texas Medical Branch**Department of Radiation Oncology, Physics Division

## Honors and Awards

Fellowship 

Nuclear Regulatory Commission Graduate Fellowship Program (2019 – · · · ·)

Scholarship **Nuclear Regulatory Commission Undergraduate Scholarship** (2015 – 2017)

Awards § J. D. Williams Student Paper Award 2020 Best Poster. J. D. Williams Student Paper Award

2019 Division Finalist: Nuclear Security and Physical Protection, **J. D. Williams Student Paper Award** 2019 Division Finalist: Education & Training Student Research Initiative Winner

Grants 

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Valentin T. Jordanov Radiation Instrumentation Travel Grant (2019), IEEE NSS-MIC Trainee Grant (2019, 2020), PSU Global Programs Graduate Student Travel Grant (2019, Two

time recipient)

Honor Societies Alpha Nu Sigma - Nuclear Engineering Honor Society, Sigma Pi Sigma - Physics Honor Society

### **Skills**

Coding Python (NumPy, pandas, SciPy, matplotlib, SQLite, scikit-learn, TensorFlow), SQL, Matlab, MS Excel, Lagrange (PTRAC, VisEd), Arduino

Technical Samma ray spectroscopy, data acquisition/analysis/visualization, machine learning, typesetting,

teaching