# Taylor Grubbs

**November 29, 2022**

tegrubbs1@gmail.com
(919)368-5087
Github: github.com/tedgrubbs
Personal Website: taylorgrubbs.online/wordpress/
Linkedin: www.linkedin.com/in/taylor-grubbs/


## Education

- **North Carolina State University** — Raleigh, NC
  *Ph.D. Student in Nuclear Engineering* — *2023-Present*
- **North Carolina State University** — Raleigh, NC
  *M.S. Physics* — *2019*
- **University of North Carolina at Greensboro** — Greensboro, NC
  *B.S. Physics* — *2016*
  - Graduated on Chancellor's List with Minors in Chemistry and Mathematics
  - Inducted into Phi Beta Kappa Honors Society

## Core Skills

- Python, Rust, C/C++, bash/shell, SQL, MongoDB, C#, Java, code debugging, fast-learner, detail-oriented, GNU/Linux, Windows, system/network administration, Git, PyTorch, Deep Learning, Computer Vision, Scikit-learn, LaTeX, technical writing, technical support

## Research and Work Experience

- **Invisible Technologies, Inc** — San Francisco, CA (Remote)
  *AI Data Expert* — *October 2022 - December 2022*
  - Acted as subject matter expert for AI dataset creation
  - Worked with other experts to organize AI model testing curriculum
  - Improved models through adversarial testing
- **ExoCrypt Investments, LLC** — Raleigh, NC
  *Data Scientist and Machine Learning Engineer* — *August 2020 - August 2022*
  - Built a framework in Python and PyTorch for the rapid training and testing of deep neural networks
  - Used ideas adapted from image classification literature to discover unique insights about market data
  - Built several Python scripts to aid data annotation performed by other team members
  - Produced performant models that could search for rare patterns within millions of hours of market data
  - Performed extensive model validation to ensure expected results across different end-user devices
- **NCSU Department of Physics** — Raleigh, NC
  *Lead Teaching Assistant* — *August 2018 - December 2019*
  - Instructed General Physics labs in electricity/magnetism and Newtonian Mechanics for undergraduate students.
  - As Lead TA was responsible for the instruction of lab lesson plans to other TAs

- Received consistently high reviews from students regarding my communication and knowledge of the subject matter

- **NCSU Department of Physics** Raleigh, NC
  *Brief Research Work* *December 2018 - April 2019*
  - Simulated the travel of ultracold neutrons through experimental setups in C++.
  - Performed data analysis using the CERN Root library
  - After leaving the project I helped instruct group members to bring them up to speed on the code's inner working so that they could continue the project.

- **CData Software, Inc.** Chapel Hill, NC
  *Software Developer/Technical Support Representative* *March 2017 - July 2018*
  - Helped connect customers' databases like SQL, MySQL, etc to business intelligence sources like Salesforce, Dynamics 365, QuickBooks and dozens more
  - Worked at fast pace with customers and team members to solve issues quickly
  - Debugging and development in Java and C#

- **UNCG Department of Chemistry and Biochemistry** Greensboro, NC
  *Undergraduate Researcher - Physical Chemistry* *January 2014 - December 2016*
  - Programmed microcontroller for solar tracking of a linear Fresnel refelector
  - Managed the operation of laser-induced photodissociation experiments of ozone with carbon tetrachloride to create chlorine monoxide
  - Programmed Lua scripts in SIMION for the simulation of molecular transport to guide design of an electric molecular trap

- **UNCG Department of Physics and Astronomy** Greensboro, NC
  *Undergraduate Teaching Assistant - General Physics* *January 2016 - December 2016*
  - Aided the in-class instruction of advanced general physics classes

- **Grubbs Tree and Shrub Care** Broadway, NC
  *General Laborer* *2008 - 2016 (Summers)*
  - Performed general landscape maintentance and installation tasks

## Certifications

- CompTia **Security+**, 2022

## Extra

- **Side Projects**
  *Personal code and writing projects - see Github and personal website link at top*
  - Logging system in Rust
  - Navier-Stokes Fluid simulation in C++
  - IT tutorials for SIEM configuration and exploit detection
  - Object detection with neural networks