Taylor Grubbs July 13, 2022

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### Education

North Carolina State University

Raleigh, NC

2019

M.S.C. Physics

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University of North Carolina at Greensboro

Greensboro, NC

B.S. Physics

2016

- Graduated on Chancellor's List with Minors in Chemistry and Mathematics

#### Certifications

• CompTia Security+, 2022

#### Core Skills

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

#### Research and Work Experience

## ExoCrypt Investments, LLC

Raleigh, NC

Data Scientist and Machine Learning Engineer

August 2020 - May 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 potential 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