

JEREMY K. THALLER

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About: US citizen; Aug. 2021 MSci. graduate with significant python and ML experience

EDUCATION

Adam Mickiewicz University (Anticipated) MSci. in Applied Physics	2019 – Aug. 2021 <i>Poznan, Poland</i>
Ludwig Maximilians & Technische Universität München (Anticipated) MSci. in Geomaterials and Geochemistry	2019 – Aug. 2021 <i>Munich, Germany</i>
Williams College B.A. in Physics with Honors GPA 3.3 Sigma Xi Honors Society Inductee Captain of Track & Field Team	2015 – 2019 <i>Williamstown, MA</i>

WORK EXPERIENCE

Brookhaven National Lab <i>Master's Thesis Researcher, Structure and Dynamics of Applied Nanomaterials Group</i> (Current) Applying supervised machine learning to synchrotron data to determine underlying structures	Feb. – Aug. 2021
Yale University <i>Postbac Researcher, Department of Mechanical Engineering and Materials Science</i> Nanomolded crystalline metals and analyzed the samples with electron microscopy, wrote and deployed a python program to quicken repetitive calculations	Summer 2019
Williams College <i>Undergraduate Thesis Researcher, Department of Physics</i> Designed with SolidWorks and CNC milled a stretching apparatus for soft materials; collected data via confocal microscopy, processed and analyzed data with MATLAB and multinomial linear regressions to measure the strain dependency of solid surface stress	2018 – 2019
Williams College <i>Undergraduate Research Assistant, Department of Physics</i> Programmed and installed a PID controller to regulate furnace temperatures within 1 °C, designed a deposition-rate detector for an indium cell chamber, and analyzed hyperfine splitting data with MATLAB and Mathematica	Summer 2017

TECHNICAL STRENGTHS

Programming Languages	Python, MATLAB, SQL, Java, Arduino (C++ Variant)
Python Packages	Pandas, NumPy, Scikit-Learn, PyTorch, TensorFlow, KERAS, Tensorboard, Seaborn, Matplotlib, Regex, Optuna
Data Software	Mathematica, Quantum Espresso, Excel, LabView, LoggerPro
Visualization Software	LaTeX, Solid Works, VESTA, Adobe Illustrator, Adobe Photoshop

RECENT PROJECTS

Facebook Messenger Analysis HTML and JSON scraping, statistics analysis and visualization, mystery friend classifier, and chatbot
Organic Semiconductor Optimization Predictor Neural network to reduce semiconductor candidate screening time by 100×

RELEVANT COURSEWORK

Computational Materials Design	Thermodynamics and Statistical Mechanics
Molecular Dynamic Simulations	Neutron Diffraction and Structural Determination
Advanced Classical Mechanics and Fluid Dynamics	Particle Physics (Oxbridge Style Tutorial)