# JEREMY K. THALLER

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## EDUCATION

**Adam Mickiwicz University**                                                          2019 – Aug. 2021
(Anticipated) MSci. in Physics of Advanced Materials for Energy Processing                *Poznan, Poland*

**Ludwig Maximilians & Technische Universität München**                     2019 – Aug. 2021
(Anticipated) MSci. in Geomaterials and Geochemistry                                       *Munich, Germany*

**Williams College**                                                                              *2015 – 2019*
B.A. in Physics with Honors | GPA 3.3                                                        *Williamstown, MA*
Sigma Xi Honors Society Inductee | Captain of Track & Field Team

## WORK EXPERIENCE

**Master's Thesis Researcher**                                                            Feb. – Aug. 2021
*Structure and Dynamics of Applied Nanomaterials Group*             *Brookhaven National Laboratory*

Applied supervised machine learning to synchrotron data to determine underlying structure

**Postbac Researcher**                                                                             Summer 2019
*Department of Mechanical Engineering and Materials Science*                          *Yale University*

Nanomolded crystalline metals and analyzed the samples with SE and TE microscopy, wrote and deployed a python program to quicken repetitive calculations

**Undergraduate Thesis Researcher**                                                        2018 – 2019
*Department of Physics*                                                                         *Williams College*

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

**Undergraduate Research Assistant**                                                        Summer 2017
*Department of Physics*                                                                         *Williams College*

Programmed and installed a PID controller to regulate furnace temperatures within 1 degree C, designed a deposition-rate detector for an indium cell chamber, and analyzed data with MATLAB and Mathematica

## TECHNICAL STRENGTHS

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|---|---|
| **Programming Languages** | Python, MATLAB, SQL, Java, Arduino (C/C++) |
| **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 |

## DATA SCIENCE 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 $100\times$

## DATA SCIENCE SKILLS

Data Cleaning and Feature Engineering, SSH + VIM, Unix Command Line (BASH), Git and Version Control, Probability and Statistics (Bayesian), Neural Networks and Deep Learning, Natural Language Processing, Image Classification and Computer Vision, Recommendation Systems