

# JEREMY K. THALLER

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## EDUCATION

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### Technische Universität München (TUM)

September 2019 - September 2020

Anticipated M.S. in Applied and Engineering Physics

Erasmus Mundus: Masters in Materials Science Exploring Large Scale Facilities

### Williams College

September 2015 - Present

(in progress) B.A. in Physics with Honors

Pre-engineering studies

### Acton-Boxborough Regional High School

2011-2015

National AP Scholar

National Honors Society

## TECHNICAL STRENGTHS

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### Programming Languages

MATLAB, JAVA, HTML, Python, Arduino (C/C++)

### Data Software

Mathematica, Excel, LabView, LoggerPro

### Other Software

LaTeX, Solid Works, Adobe Illustrator, Adobe Photoshop

### Machining Experience

Bridgeport Milling, CNC Milling, 3D Printing, Laser Cutting

## RESEARCH EXPERIENCE

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### Soft Condensed Matter Physics

May 2018 - Present

*Undergraduate Honors Thesis*

*Advised by Katharine E. Jensen, Professor of Physics*

*Williams College*

- Designed and built stretching apparatus to induce equibiaxial stretch in soft materials
- Used Fluorescent Confocal Microscopy to measure the strain dependency of solid surface stress in soft materials via adhesion
- Data was collected through modified MATLAB scripts from K.E. Jensen and M.L. Kilfoil

### Atomic, Molecular, and Optical Physics

June - August 2017

*Undergraduate Research Assistant*

*Advised by Protik K. Majumder, Professor of Physics*

*Williams College*

- Took data towards an ultra-precise measurement of the Electric Quadrupole (E2) amplitude within the  $6S^2 6P^2 \ ^3P_0 \rightarrow \ ^3P_2$  transition in Pb
- Programed a PID controller in LabView to thermally regulate an oven to within  $\pm 4^\circ$  C at temperatures around  $950^\circ$  C
- Designed a deposition-rate detector for an indium cell chamber based on the mass dependent frequency of Quartz Crystals

## ADVANCED PHYSICS COURSEWORK

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Condensed Matter Physics (Spring 2019)  
Thermodynamics and Statistical Mechanics (Spring 2019)  
Advanced Classical Mechanics and Fluid Dynamics (Tutorial)  
Gravity  
Particle Physics (Tutorial)  
Quantum Mechanics  
Philosophical Implications of Modern Physics  
Electricity and Magnetism  
Mathematical Methods for Scientists  
Vibrations, Waves, and Optics

## ADDITIONAL INFORMATION

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<b>Interests</b>	Bassoon, Jazz Piano, Running, Bicycle Repair, Arduinos, Rocketry, Graphic Design
<b>Languages</b>	German (Currently B2)