

Kathryn A. Small

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Professional Summary:

- Multidisciplinary engineer with 5+ years of hands on experience with quantitative materials characterization and data analysis
- Knowledge of and experience with various statistical analysis and data visualization tools including LabVIEW, SolidWorks, Python and Matlab
- Excellent data analysis, collaborative and problem-solving skills, shown by variety of team-based projects as well as teaching and leadership roles in technical and non-technical environments

Education:

<u>Ph.D. Materials Science and Engineering</u> , Johns Hopkins University	2021
<u>M.S. Materials Science and Engineering</u> , Drexel University	2017
<u>B.E. Biomedical Engineering</u> , Stony Brook University	2013

Work Experience:

Postdoctoral Appointee

Sandia National Laboratories
July 2021 – present
Supervisor: Dr. Khalid Hattar

- Contributed to understanding of mechanisms of degradation in structural and energy materials through collection and analysis of data from 5 collaborative experiments
- Supervised and trained 5+ interns in statistical and image analysis of materials data
- Wrote successful research proposal for use of characterization equipment in user facility

Ph.D. Candidate

Johns Hopkins University
Drexel University
September 2017 – June 2021
Supervisor: Dr. Mitra Taheri

- Led all aspects of 5-year research project to optimize microscale elastic strain calculation for additively manufactured Ni alloys
- Presented and published findings at 5+ conferences and in 4 peer reviewed publications

Product Development Engineer

Product Development Intern
Smith & Nephew
January 2014 – August 2015
Supervisor: Kyle Lonidier

- Managed northwestern region of 20+ U.S. surgeons using VISIONAIRE cutting blocks, visited surgeons and sales representatives to observe procedures and inform cutting block design
- Aligned 100+ 3D models of patient specific TKA cutting blocks FEA software NX6

Other Relevant Experience:

IBM Data Science Professional Certificate Coursera (In progress)

Python for Scientists and Engineers Enthought (December 2021)

Drexel University Teaching Assistant 2017-2019: Instructed and assisted 40+ undergraduate students in experimental design, microscopy and mechanical testing, and fundamentals of materials science