

# JOSEPH BLOCHBERGER

Graduate Student  
Department of Electrical & Computer Engineering  
The Johns Hopkins University  
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## PROFESSIONAL SUMMARY

Experienced multidisciplinary engineer, well-versed in structural vibrations and acoustics, and committed to studying the performance of fielded engineering systems using empirical data, engineering principles, and applied probability / statistics.

## TECHNICAL PROFICIENCIES

**Languages:** MATLAB, MySQL, Mathematica, Octave, R, Python, CSS, HTML, Javascript

**Skills:** Acoustics, Analyzing Sensor Data, Sonar, Signal Processing, Project Management, Independent Test & Evaluation, Systems Engineering, Applied Probability / Statistics, Vibrations, Noise Control, Mechanical Engineering

## EDUCATION

**Master of Science, Mechanical Engineering**, 12/2018, The Pennsylvania State University (Penn State)

**Bachelor of Science, Mechanical Engineering**, 05/2015, Virginia Polytechnic Institute and State University (Virginia Tech)

## APPOINTMENTS

- Project Manager, **The Johns Hopkins University Applied Physics Laboratory**, 09/2020 to present
- Test & Evaluation Engineer, **The Johns Hopkins University Applied Physics Laboratory**, 03/2019 to present
- Systems Engineer (Acoustics), **General Dynamics Electric Boat**, 05/2015 to 03/2019
- Research Assistant, **Energy Harvesting and Mechatronics Research Laboratory** (Advised by Prof. Lei Zuo), Virginia Tech, 01/2015 to 05/2015
- Engineering Intern, **General Dynamics Electric Boat**, 06/2014 to 01/2015
- R&D Engineering Intern, **Kollmorgen**, 01/2014 to 05/2014
- Lab Operator, **Virginia Tech Math Emporium**, Virginia Tech, 2013 to 2014

## PUBLICATIONS

### *Peer-reviewed Conference Proceedings*

**J. Blochberger**, "Analysis of Structural Acoustic Design Variables for a Periodically Stiffened Plate Using the Finite Element Method," *Proceedings of the ASME 2019 International Mechanical Engineering Congress & Exposition. Volume 11: Acoustics, Vibration, and Phononics*. Salt Lake City, Utah, USA. November 11-14, 2019. V011T01A007. ASME. <https://doi.org/10.1115/IMECE2019-10259>

## **PRESENTATIONS**

**J. Blochberger**, “Analysis of Structural Acoustic Design Variables for a Periodically Stiffened Plate Using the Finite Element Method,” ASME 2019 International Mechanical Engineering Congress & Exposition, Salt Lake City, UT, USA, 2019

B. Ayliff, **J. Blochberger**, N. Foy, P. Norman, and T. Smith “Smart Acoustic Monitoring System,” NASA Acoustics Technical Working Group, Hampton, VA, USA, 2015

## **OTHER PROJECTS**

**J. Blochberger**, “Performance of Reactive Acoustic Mufflers,” Wolfram Demonstrations Project, 2016.  
<https://demonstrations.wolfram.com/PerformanceOfReactiveAcousticMufflers/>

## **HONORS / AWARDS**

- *Special Achievement Award*, The Johns Hopkins University Applied Physics Lab, 2020
- *Janney Explore Award*, The Johns Hopkins University Applied Physics Lab, 2019
- *Excellence in Mentoring Award*, General Dynamics Electric Boat, 2019
- *James Brown Memorial Scholarship*, General Dynamics Electric Boat Management Association, 2017
- *Best in Innovation & Creativity Award*, Virginia Tech Mechanical Engineering Department, 2015
- *Dean’s List*, Virginia Tech, 2014

## **MEMBERSHIPS / AFFILIATIONS**

American Society of Mechanical Engineers (ASME), 2012 to present  
Acoustical Society of America, 2014 to 2019

## **PROFESSIONAL SERVICE**

- Technical Committee Member
  - ASME Noise Control & Acoustics Division (NCAD), Structural Acoustics
- Conference Organizer
  - Topic Chair, Analytical & Computational Vibrations & Acoustics, 2021 ASME International Mechanical Engineering Congress & Exposition
  - Topic Chair, Analytical & Computational Vibrations & Acoustics, 2020 ASME International Mechanical Engineering Congress & Exposition
- Conference Paper Reviewer
  - 2021 ASME International Mechanical Engineering Congress & Exposition
  - 2020 ASME International Mechanical Engineering Congress & Exposition
  - 2019 ASME International Mechanical Engineering Congress & Exposition
  - 2018 ASME International Mechanical Engineering Congress & Exposition
  - 2017 ASME International Mechanical Engineering Congress & Exposition