

Amanda Lind, Ph.D.

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141 Spencer Street, Apt 408 Brooklyn, NY 11205

EDUCATION

- **Graduate Program in Acoustics, Penn State University**
M.S. in Acoustics May 2011, GPA 3.56
Ph.D. in Acoustics, Dissertation & Defense complete, pending FAA Approval: Official - Dec 2017
Sonic booms, outdoor sound, auralization, C++ implemented acoustic model & empirical validation.
- **University of Miami, Coral Gables, FL**
Bachelors of Science in Audio/Electrical Engineering, May 2007. Emphasis in speech and acoustic signal processing, spatial audio, and C++.

EXPERIENCE

- **Skybuds, New York, NY**
Acoustics/DSP R&D: July 2017 – Present
- **Zoox (Consultant), Menlo Park, CA (remote)**
Acoustic & Audio Systems Consultant: June 2017 – Present
External Design Review
- **Criterion Acoustics (Consultant), New York, NY**
Acoustic Consultant: January 2017 – Present
Calculations, acoustic simulations in 3rd party software, and authors Matlab scripts to guide and optimize architectural design.
Selected Projects: <http://texas-live.com/>, Warner Music's Conversion of the Ford Factory
- **SYMMETRY LABS (Consultant), San Francisco, CA (remote)**
Audio Developer (Consultant): November 2016 – Present
Combined open source music feature extraction libraries. Communicated real time music features to Symmetry Labs LED pattern generation software. Managing a team of three with the scope of real time detection of musical key via the WEKA machine-learning engine.
- **ZOOX, Menlo Park, CA**
Project Lead, Acoustic/Audio Engineer: Nov 2014 - Oct 2016
Single handedly created a proof of concept prototype; a purpose built multichannel audio communication system with a beautiful UI in 4 months. Acoustic design was guided by Matlab simulation. Demoed the system to investors 4x per week. Incrementally hardened the design with a small team. Executed schematic design through PCB layout in Altium, and coordinated fabrication and assembly. Contracted and coordinated mechanical engineering facets. Selected a DSP Platform -TI's TMS320C6747. Wrote firmware and signal processing algorithm in Embedded C. Integrated in a closed loop with a sensor suite and AI stack and tuned latency.
- **ARUP, San Francisco, CA**
Acoustic Consultant: April 2013 - Nov 2014
Acoustic analysis of 10+ Apple Retail stores and Apple campus. Executed acoustic measurements, some designed in house, others to verify compliance with legislation. Efficient creation of binaural and ambisonic auralizations of spaces from blueprint or 3d model. Experimented with binaural audio with head tracking for Google Glass.

- **TRADE THE NEWS, New York, NY**
Chief Audio Engineer: May 2012 - April 2013
Vocal talent tuning, studio expansion, & maintenance of an investment advice radio station.
- **LE POISSON ROUGE, New York, NY**
Part Time Sound Tech: August 2010 - May 2012
Stagehand, Monitor Engineer
- **PENNSYLVANIA STATE UNIVERSITY, State College, PA**
Graduate Research Assistant: August 2007 - December 2016
Auralized sonic booms, simulating how they would be altered by specular reflections and diffraction in a planar environment. Developed a simulation tool in C++ in the Xcode environment. Analyzed sonic booms recorded at the ground and by a sailplane.
- **Artec, New York, NY**
Acoustic Consulting Intern: May 2008 – August 2008
Built geometry for CATT-Acoustic model of the Orlando Performing Arts Center (Dpac) from CAD drawings, selected parameters for the model, and ran simulations.
- **WVU's VIRTUAL ENVIRONMENTS LAB, Morgantown, WV**
NSF Research Assistant: May 2006 - August 2006
Performed spectral analysis and extracted metrics/features of steel pan recordings.

PROFICIENCIES

- **Development Environments:** Xcode, Code Composer, Eclipse, WISCE, Vim
- **Languages:** Matlab, C/C++, MaxMSP, Spanish
- **Utilities:** Proficient in Git, Adobe CS, MS Office
- **Modeling & Design Tools:** AutoCAD, Rhino, Sketch-up, COMSOL, CATT Acoustic, Odeon, Ableton, Altium Designer, LTSpice, Sound Plan, Sound Flow, Easera

PATENTS

Inventor on two Zoox patents: Application Numbers: 14/756,993(**pending**) and 9,630,619(**granted**)

PUBLICATIONS

- [1] 5th AIAA/CEAS Aeroacoustics Conference. *Including the Effects of Terrain Reflections and Postboom Noise in Sonic Booms*, Graduate Program in Acoustics, Pennsylvania State University, 201 Applied Science Bldg., University Park, PA 16802, May 2009. AIAA.
- [2] A. B. Lind. *Modeling specular reflections and post boom noise to augment synthesized outdoor sonic boom signatures*. Master of science, Pennsylvania State University, 201 Applied Science Bldg., University Park, PA 16802, July 2010.
- [3] *Application of the mirror source method for sonic booms outdoors.*, Volume 129, Graduate Program in Acoustics, Pennsylvania State University, 201 Applied Science Bldg., University Park, PA 16802, 2011. J. Acoust. Soc. Am.
- [4] ICA 2013 Montreal. *The impact of including diffraction when predicting the effect of listener environment on the perceived loudness of outdoor sonic booms*, Volume Proc. Mtgs. Acoust. 19, Graduate Program in Acoustics, Pennsylvania State University, 201 Applied Science Bldg., University Park, PA 16802, June 2013. Acoustical Society of America, AIP.
- [5] A. B. Lind. *Auralizing impulsive sounds outdoors among buildings*. Doctoral dissertation, Pennsylvania State University, 201 Applied Science Bldg., University Park, PA 16802, May 2017.