Curriculum Vitae

PERSONAL INFORMATION	Name	Nathan Keil
	Home address	369 Congress Street, Troy, NY 12180
	Telephone number	+1 716 930 8350
	Email address	keiln@rpi.edu

EDUCATION

Rensselaer Polytechnic Institute, Troy, NY

Architectural Acoustics, M.S.   **May 2018 − May 2020**
- Thesis: "Polyphonic pitch perception in rooms using deep learning networks with data rendered in virtual acoustic environments"
- Advisor: Prof. Jonas Braasch

Applied Physics, B.S., Cum Laude   **August 2014 − May 2018**
- Concentration: Architectural Acoustics
- Minor: Music Technology

RELEVANT COURSEWORK

Ensemble Nonlinear, Introduction to Deep Learning, Sonics Research Lab I & II, Sonification Art & Science, Sound Recording & Production, Music and Technology I & II, Engineering Acoustics, Architectural Acoustics I & II, Aural Architecture, Psychoacoustics, Music Theory, Computer Music.

COMPUTER SKILLS

Proficient: ChucK, git, LaTeX, MATLAB, Max/MSP, Pro Tools, Pure Data, Python, TensorFlow.
Familiar: C++, CSS, HTML

PROFESSIONAL EXPERIENCE

Adobe Research, San Francisco, CA

Internship   **August 2019 − November 2019**
Wrote a Python module for an Audio Processing Library in order to streamline the data preprocessing pipeline for easier audio machine learning research.

Rensselaer Polytechnic Institute, Troy, NY

Undergraduate Co-Op   **June 2017 − December 2017**
Built an audiovisual system designed to network remote music performers to a MIDI ensemble in an immersive environment.

ADDITIONAL EXPERIENCE

Acoustical Society of America RPI Student Chapter, Troy, NY

President   **September 2018 − May 2019**

Ground Zero Basement, Troy, NY

Booking Manager   **May 2018 − May 2019**
Booking/promoting and event organizing for a DIY music venue.

RPI Orchestra, Troy, NY

Principal Cellist   **September 2017 − May 2018**

Society of Physics Students RPI Chapter, Troy, NY

Vice President   **May 2016 − May 2017**

Secretary/Treasurer **May 2015 – May 2016**

HONORS AND
AWARDS

Acoustical Society of America Student Design Competition Commendation Award (USD 700, 2017).

PUBLICATIONS

Conference
Keil, N., et al., "Polyphonic pitch perception in rooms using deep learning networks with data rendered in auditory virtual environments" *177th Meeting of the Acoustical Society of America*, 2019.

Çakmak, C., Huang, M., Keil, N., "Designing immersive audiovisual environments for music performers with disabilities" *International Symposium on Adaptive Technology in Music and Art*, 2017 (submitted).

REFERENCES

Prof. Jonas Braasch	**Prof. Rob Hamilton**	**Juan-Pablo Caceres**
RPI	RPI	Adobe Research
Troy, NY	Troy, NY	San Francisco, CA