Jatin Chowdhury
Audio Signal Processing Engineer
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Education

Stanford University, Center for Computer Research in Music and Acoustics *Palo Alto, CA*
M.A. in Music, Science, and Technology *Sept. 2018 - June 2020*
- Denning Family Fellowship for the 2018-2019 academic year.
- Relevant Coursework: Advanced Digital Signal Processing, Signal Processing for Machine Learning.
- Research: Nonlinear Signal Processing, Virtual Analog Modelling, Modal Signal Processing.

University of Southern California *Los Angeles, CA*
B.S. in Electrical Engineering, Physics (Minor), Music Recording (Minor) *Aug. 2014 - May 2018*
- USC Presidential Scholarship, USC Renaissance Scholar
- Relevant Coursework: Signal Processing, Circuit Design, Digital Logic, Electromagnetics, Software Design.

Experience

Persp3ctive VR *Los Angeles, CA*
Software/DSP Engineer *June 2019 - PRESENT*
- Developed audio effects for use in a VR audio production environment including a 10-band EQ and a compressor.
- Built DSP framework for integrating effects made by other engineers into the plugin.
- Implemented OSC communication for sharing parameters and metering data with VR headset.

Audioworks Technologies *Toronto, ON*
Software Engineer *July 2018 - Dec. 2018*
- Member of of the SoundsUnite developement team: building a digital audioworkstation (DAW) using JUCE/C++.
- Developed and implemented DSP, UX, and file management features for the application.

McGill Space Institute *Montreal, QC*
Research Trainee *May 2017 - Aug. 2017*
- Member of the CHIME/FRB Working Group: building a software pipeline to detect Fast Radio Bursts (FRBs).
- CHIME is a telescope in British Columbia; has detected most FRBs in the Northern Hemisphere to date.
- Presented work for CHIME/FRB Working Group and CHIME/FRB Pipeline Gamma Release.

Publications & Presentations

Real-Time Physical Modelling for Analog Tape Machines *Sept. 2019*
Proc. of the 22nd International Conference on Digital Audio Effects *Birmingham, UK*
- Oral presentation at the DAFx-2019 conference.
- Available on the DAFx Archives: `http://ant-s4.unibw-hamburg.de/dafx/paper-archive/`.

The CHIME Fast Radio Burst Project: System Overview *Aug. 2018*
The Astrophysical Journal *Vol. 836, No. 1*
- Co-authored with the CHIME/FRB Collaboration
- Available on the arXiv: `https://arxiv.org/abs/1803.11235`.

Skills

Programming Languages C/C++, Python, MATLAB, Faust, LaTex, Javascript
Tools/Frameworks Linux, Visual Studio, Git, Travis, JUCE, Audio Plugins (VST, AU, AAX, WAM)

Projects

Chowdhury DSP
Founder, Engineer *June 2018 - PRESENT*
- Developed audio plugins including distortion, dynamic range control, filterbanks, and delay matrix effects.
- Designed and developed NewMixer, a unique and revolutionary audio mixing tool.

NoLava Recording Studios *Los Angeles, CA*
Co-Founder, Audio Engineer, Technical Advisor *Aug. 2017 - July 2018*
- Recorded, mixed, and mastered for artists of various styles including acoustic, electronic, rock, country, and punk.
- Installed, repaired, and maintained speakers, microphones, keyboards, amplifiers, and other musical equipment.