

David H. Benson

Audio software developer



davebenson.ca



drdb



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EXPERIENCE

MCGILL UNIVERSITY | RESEARCH ASSISTANT (SOFTWARE DEVELOPER)

2013 – Present | Montreal, QC

- Built software tools to support research activities in the Sound Recording Area at the Schulich School of Music (Web Audio API/AngularJS/Ruby on Rails, Max/MSP, C++/JUICE)
- Wrote a plugin for controlling multichannel reverberation that was ultimately used in the Disney feature film Maleficent (C++/JUICE)
- Analyzed audio signals in Matlab
- Co-authored papers for international conferences, contributing expertise in statistics and signal processing

WEBTET.NET | FULL-STACK SOFTWARE DEVELOPER

2011 – Present

- Developed a web application to teach critical listening skills to sound engineers (Web Audio API/Javascript/Ruby on Rails)
- Maintained near-constant uptime for over a decade as webtet.net became the most popular site of its kind, serving thousands of students each month
- Wrote custom multithreaded DSP code for dynamics compression
- Minimized code regressions via an extensive test suite

SKILLS

Expert Javascript • AngularJS • Ruby on Rails • Web Audio API • HTML • CSS • AWS S3 • git

Proficient C • C++ • JUICE • SQL • Matlab • Heroku • Max/MSP • Shell script • Node.js

ACTIVITIES AND INTERESTS

- Professional musician since 2001. Choir singer with the Montreal Symphony Orchestra and the Montreal Bach Festival; backup vocalist for Voivoid, Malajube & Deltron 3030. Headlined at the Montreal International Jazz Festival and others

EDUCATION

PHD IN SOUND RECORDING | MCGILL UNIVERSITY 2022

- Researched intuitive user interfaces for reverberation effects
- Demo: <https://virb.herokuapp.com?u=web>

MA IN MUSIC TECHNOLOGY | MCGILL UNIVERSITY 2007

- Outstanding Teaching Assistant Award
- Coursework included digital signal processing and music & machine learning

B.MUS IN MUSIC TECHNOLOGY & VOICE PERFORMANCE | MCGILL UNIVERSITY 2004

- High Distinction (GPA 3.8/4)
- Coursework included real-time audio application development (C), data structures & algorithms, object oriented design, and other computer science fundamentals