

# David H. Benson

Full-Stack Software Engineer



davebenson.ca



drdb



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## EXPERIENCE

**MCGILL UNIVERSITY** | RESEARCH ASSISTANT (SOFTWARE DEVELOPER)

2013 – Present | Montreal, QC

- Developed web applications (Javascript/Ruby on Rails), audio effect plugins (C++/JUCE), and other scripts and software tools (R, Max/MSP, MATLAB) to support research activities in the Sound Recording Area at the Schulich School of Music
- Researched auditory perception in sound engineering communities
- Co-authored papers for international conferences, contributing expertise in statistics and signal processing

**WEBTET.NET** | FULL-STACK SOFTWARE ENGINEER

2011 – Present

- Developed a web application (Javascript/Web Audio API/Ruby on Rails/Heroku) to teach critical listening skills to sound engineers
- Collaborated with leading pedagogues from across North America
- Maintained near constant uptime for over a decade as the webtet.net became the most popular site of its kind, serving thousands of students each month

## SKILLS

**Proficient** Javascript • Web Audio API • Ruby on Rails • HTML • CSS • MATLAB • Heroku • R

**Familiar** C • C++ • Java • Python • JUCE • SQL • AWS • node.js • Shell Script

## EDUCATION

**PHD IN SOUND RECORDING** | MCGILL UNIVERSITY 2022

- Researched intuitive user interfaces for digital audio effects
- Demo: <https://virb.herokuapp.com>
- Coursework included computer graphics and music & machine learning

**MA IN MUSIC TECHNOLOGY** | MCGILL UNIVERSITY 2007

- Researched headphone-based spatial audio
- Outstanding Teaching Assistant Award
- Coursework included psychoacoustics and digital signal processing

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

- High Distinction (GPA 3.8/4)
- Coursework included object oriented programming, data structures & algorithms, and other computer science fundamentals