David H. **Benson**

Full-stack software developer, audio specialist

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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 (Javascript/AngularJS/Ruby on Rails, Max/MSP, C++/JUCE)
- Wrote a plugin for controlling multichannel reverberation that was ultimately used in the Disney feature film Maleficent (C++/JUCE)
- Supervised a small team of metadata specialists and junior programmers
- Co-authored papers for international conferences, contributing expertise in statistics and signal processing (Matlab, R)

WEBTET.NET | Full-Stack Software Developer
2011 – Present

- Developed a web application to teach critical listening skills to sound engineers (Javascript/AngularJS/Web Audio API/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
- Collaborated with leading pedagogues from across North America
- Minimized code regressions via an extensive test suite

Skills

Expert Javascript • AngularJS • Ruby on Rails • Heroku • Matlab • R • Git

Proficient C • C++ • JUCE • Java • Max/MSP

Familiar Python • React • SQL • Node.js • Shell script

Activities and Interests

- Music. Choir singer with the Montreal Bach Festival and Montreal Symphony Orchestra
- Statistics, machine learning, deep learning

Education

PHD IN SOUND RECORDING | McGill University 2022

- Researched intuitive user interfaces for reverberation effects [click for demo]
- Coursework included DSP, computer graphics and music & machine learning

MA IN MUSIC TECHNOLOGY | McGill University 2007

- Outstanding Teaching Assistant Award

B.MUS IN MUSIC TECHNOLOGY & VOICE PERFORMANCE | McGill University 2004

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