

David H. Benson

Full-Stack Software Developer



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drdb



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EXPERIENCE

PETAL | BACKEND DEVELOPER II

July 2023 – Present

- Contributed features aimed at maximising care delivery efficiency to a prominent API for booking medical appointments (Ruby on Rails / Grape / Swagger / Sidekiq / RSpec)
- Updated frontend code to accomodate API changes (Typescript / Angular / NgRx / Jest)
- Led a hackathon project that reduced API response times for common requests by 50% (ElasticSearch / Chewy, Python / Pandas)

MCGILL UNIVERSITY | RESEARCH ASSISTANT (SOFTWARE DEVELOPER)

Sept 2013 – July 2023 | Montreal, QC

- Built software tools to support research activities in the Sound Recording Area at the Schulich School of Music (AngularJS / Ruby on Rails / PostgreSQL, C++ / JUCE)
- Led software development on the Spacebuilder Project, a multi-year effort to catalogue and make searchable a massive collection of room acoustic data [click for details]
- Supervised a small team of metadata specialists and junior programmers
- Co-authored papers for international conferences, contributing expertise in statistics, signal processing and data visualization (Matlab, R)

PROJECTS

WEBTET.NET | FULL-STACK SOFTWARE DEVELOPER

2011 – Present

- Solo-developed a web application to teach critical listening skills to sound engineers (Javascript / Web Audio API / AngularJS / Ruby on Rails / PostgreSQL / Heroku)
- 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 (Cucumber / Capybara)

SKILLS

Expert

Ruby on Rails • RSpec • Git

Proficient

Typescript • Angular • R

Familiar

NgRx • Python • C++

EXTRACURRICULARS

- Music. Choir singer with the Montreal Symphony Orchestra & others

EDUCATION

PHD / MA / B. MUS IN MUSIC TECHNOLOGY | MCGILL UNIVERSITY 2022 / 2007 / 2004

- Researched intuitive user interfaces for reverberation effects [click for demo]
- Coursework included statistical learning and computer science fundamentals