



Evan Savage

Software Developer, Data Engineer, Music Technologist

Profile

Versatile developer skilled in a wide array of technologies for software and web application development, and how machine learning can be integrated into them. Continually researches and applies the best practices for solving complex tasks, without reinventing the proverbial wheel.

Employment History

Full Stack Developer at aPeoplesCalendar, Philadelphia

May 2020 — Present

- Migrated and maintained web-scraped JSON data into a SQLite database in the React Native application
- Re-envisioned the front-end with responsive mobile practices and accessibility in mind
- Configured optional push notifications for users to receive curated daily content updates

Web Developer at Mat3rial, Montréal

April 2020 — Present

- Constructed a multi-lingual website from scratch in Jekyll using Liquid filters and creative front-matter variables
- Integrated a custom Forestry Content Management System (CMS) providing content managers with custom variables for user interaction
- Themed a responsive, modern front end architecture, communicating with administrative staff and visual designers

Front End Developer at Center for Interdisciplinary Research in Music and Media Technologies (CIRMMT), Montréal

April 2019 — Present

- Designed and developed the front end for CIRMMT's new website in Plone, combining Python, JavaScript, and HTML/CSS programming inside of a Docker container
- Created dynamic AJAX search bar functionality for the website's custom member and project content types, connecting to the Zope back end architecture
- Collaborated with the administrative staff and the back end developer, iteratively migrating content from the old website and updating the responsive layouts

Data Science Graduate Research Assistant at Distributed Digital Music Archives and Libraries (DDMAL) Laboratory, Montréal

May 2019 — Present

- Synthesized 13th-century handwritten manuscript data using a Generative Adversarial Network (GAN) in Tensorflow

Details

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Links

[GitHub](#)
[LinkedIn](#)

Skills

Python

JavaScript

jQuery

Pytorch

Tensorflow

HTML & CSS

Plone

MATLAB

React

React Native

C

C++

Java

Django

MongoDB

NodeJS

Docker

AWS

Flask

Go

- Envisioned a machine-learned Optical Music Recognition (OMR) processing pipeline in PyTorch, comparing whether real and GAN-synthesized training data outperformed real data on its own for masters research
- Integrated the OMR pipeline into DDMAL's workflow engine, Rodan, migrating the Python code into the web application's Docker container

Web Developer / Content Manager at DDMAL Laboratory, Montréal

September 2018 — Present

- Designed and developed the website for the 2020 International Society for Music Information Retrieval (ISMIR) conference
- Reconfigured the DDMAL and Single Interface for Music Score Searching and Analysis (SIMSSA) websites on GitHub Pages using Jekyll
- Attached a custom CMS with Forestry to easily augment website contents and add blog posts outside of a development environment

Co-Founder / Full Stack Developer at Giglogic, State College

January 2018 — January 2019

- Configured back- and front-end infrastructures via AWS using the MEAN framework for the booking and tour planning web application
- Designed an interface to integrate Google Maps API and JavaScript tour planning logic
- Developed web scrapers with Python to collect venue and musical artist data to store and access on the AWS Mongo database

Undergraduate Research Assistant at Graduate Program in Acoustics, University Park

December 2015 — December 2017

- Created custom subjective test interfaces and digital signal processing (DSP) methods for combining room impulse response recordings using C and Max MSP programming for honors undergraduate thesis research
- Facilitated subjective testing of musically-experienced participants to create an overall metric for Listener Envelopment (LEV) to predict overall acoustic quality of concert halls

Hobbies

Music Production
Algorithmic Composition
DJ
Trombone
Piano
Chess
Reading
Running
Biking

Education

Master of Arts in Music Technology, McGill University, Montréal

August 2018 — August 2020

- Masters Thesis: *Optical Music Recognition of Square Notation Using Generative Adversarial Networks*
- Recipient of a Graduate Excellence Fellowship

Bachelor of Science in Computer Science, Pennsylvania State University, State College

August 2013 — December 2017

- Schreyer Honors Thesis: *Investigating Energy Integration Time Limits for Listener Envelopment Perception Using a Real-time Adaptable Hybrid Impulse Response Method*
- Minors in Music Technology and Arts Entrepreneurship
- Member of Tau Beta Pi Engineering Honor Society