#### **Alexis Millares Thomson**

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Toronto, ON

#### **ABOUT ME**

I'm a web developer with a research-driven mindset and a sharp eye for structure, clarity, and user experience. With a PhD in Music Theory and a background in teaching, I bring analytical precision, strong communication skills, and a talent for making complexity usable—whether in code, content, or interface design.

I build full-stack applications using JavaScript, React, Ruby on Rails, Python, and SQL, with a focus on clean architecture and thoughtful design. I thrive in collaborative environments where attention to detail, clear documentation, and user-centered thinking drive development. My goal is always to create tools that not only work—but that teach, scale, and make knowledge easier to access.

#### **SKILLS**

# Languages & Frameworks

Node.js | JavaScript | Ruby | SQL | Python | TypeScript | Express | Rails | React | Django | CSS Tools & Technologies

Git | GitHub | Visual Studio Code | Bootstrap | REST APIs | Mocha | Chai | RSpec | Cypress

## Research & Analytical Tools

Microsoft 365 | Data Organization | Academic Research

### **Teaching & Communication**

Curriculum Development | Lecturing | Public Speaking | Technical Writing

### Soft Skills

Adaptability | Problem Solving | Critical Thinking | Collaboration

## Languages

English (Bilingual) | Spanish (Bilingual) | German (Fluent) | French (Conversational)

#### **EDUCATION**

Lighthouse Labs Sep. 2024–Dec. 2024

Diploma: Web Development

University of Toronto Sep. 2019–June 2025 (exp.)

Doctor of Philosophy, Music Theory

University of Toronto Sep. 2016–June 2018

Master of Arts, Music Theory

Concordia University Sep. 2012–June 2016

Bachelor of Fine Arts, Music Composition

#### PROFESSIONAL EXPERIENCE

## University of Toronto

Full stack Web Developer

Toronto, ON Feb. 2025–present

 Designing and creating database for "European Refugee Musicians in Canada" online biographical dictionary.

- Developing a web application with a React frontend, integrated with a CMS-backed database to manage dynamic content efficiently.
- Integrating a custom API to fetch and display structured content efficiently.

## **University of Toronto**

Music Theory Course Instructor

Jan. 2023-May 2023

- Simplified complex concepts for undergraduates, showcasing skills in breaking down technical problems.
- Led interactive lectures, fostering collaboration and critical thinking.
- Managed teaching assistants, ensuring consistency and quality.

## University of Toronto

Research Trainee

March 2023-July 2024

- Conducted in-depth research on music theory topics, and synthesized data for academic publication.
- Drafted and edited materials, paying attention to detail and clear documentation.

## University of Toronto

Research Assistant

Jan. 2021-March 2023

- Created and managed large datasets to support faculty research projects.
- Refined analytical methodologies through collaboration, fostering a problem-solving environment.

#### **University Settlement Music & Arts School**

Toronto, ON

Faculty Member and Theory Teacher

Sep. 2018-Aug. 2021

- Tailored lessons to diverse skill levels, emphasizing adaptability to student needs.
- Assessed student progress and implemented targeted instructional strategies, achieving high exam pass rates.
- Used creative teaching methods to maintain student engagement and foster a collaborative learning environment.

## **HIGHLIGHTED PROJECTS**

#### **Transformational Tonnetz**

May 2025-in continuous development

Scope: a single-page web tool for visualizing and modelling musical progressions.

Tools: Node.js, React, Vite, TypeScript

# Description:

- Used SVG for creating geometric tiling that user interacts with.
- Created multiple custom hooks to allow for different visualization options, dynamic zoom controls, and alternative usage mode.

## **Just Intonation Tools**

March-April 2025

<u>Scope:</u> a multi-page web app with a set calculator and an interactive 3D modelling space, meant to explore advanced concepts in music theory.

Tools: Node.js, React, Python, JavaScript, Django, Three.js

#### Description:

- Used Python and Django framework for calculations and computations in the backend.
- Used Three.js to create 3D geometry and manipulable dynamic scene.
- Created custom hooks to manage state of multiple features and functions.

## **ERMiC Online Biographical Dictionary**

February 2025 (in progress)

<u>Scope:</u> a static content web application that allows users to perform custom searches and browse the dictionary's contents.

<u>Tools:</u> Node.js, React, JavaScript, Contentful CMS, Tailwind CSS, Jest Description:

- Designed a CMS-backed database and built a React frontend to fetch data.
- Trained a team of editors to populate CMS database.
- Implemented a search bar with sophisticated search-filtering and navigation features.
- Created custom hooks to manage data, navigation, and rendering.
- Implemented comprehensive unit testing with Jest framework.

# Express TinyApp v2.0

January 2025

<u>Scope:</u> a multi-page web application for managing and sharing shortened URLs, emphasizing user permissions and database-driven data handling.

<u>Tools:</u> Node.js, Express.js, EJS, PostgreSQL, JavaScript, HTML, CSS, Chai

# <u>Description:</u>

- Built RESTful routes for secure authentication, URL creation, and management.
- Designed dynamic, responsive EJS templates for a user-friendly experience.
- Configured PostgreSQL for reliable data storage and integrity.