

Théo Bourgeois

Bilingual (French/English)

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EDUCATION

Dalhousie University

Bachelor of Computer Science, GPA: 4.07/4.3

Sep 2021 – Jul 2025

Halifax, NS

EXPERIENCE

ReelData

Software Engineer

May 2023 – Aug 2024

Halifax, NS

- Led front-end development of an enterprise-level fish counting platform using **React.js** and **TypeScript**, improving UX responsiveness and supporting 3+ production clients
- Integrated **GraphQL** APIs for real-time data sync, reducing redundant network calls by 40% and boosting page load speed by 25%
- Designed and deployed scalable backend modules using **Java Spring Boot** and **PostgreSQL**, achieving 100% code coverage via unit and integration tests
- Built a **Kafka** consumer in **Node.js** using **Docker** to route fish trajectory data, accelerating QA cycles for product validation by 30%

Dalhousie University

Tutor, Faculty of Computer Science Learning Center

Sep 2024 – Present

Halifax, NS

- Conducted 50+ tutoring sessions on core computer science topics such as algorithms, data structures, and software development
- Provided hands-on debugging guidance and conceptual explanations, helping an average of 3 students per session resolve assignment issues
- Received consistent positive feedback from students for clarity, patience, and technical expertise

PROJECTS

DalSearch | Next.js, React, Typescript, Python, Tailwind

- Developed a course search tool used daily by Dalhousie students to browse schedules, instructors, and class details
- Implemented a robust scraping pipeline in **Node.js** and **Python** to gather and unify data from university resources and RateMyProfessors
- Deployed on **Next.js** for server-side rendering and SEO optimization, enhancing load times and discoverability
- Grew to 500+ users and received frequent positive feedback on its usefulness, design, and reliability

VidGen | Typescript, React, Tailwind, Next.js, MySQL, tRPC, Drizzle, Google Cloud Functions, FFmpeg

- Built a scalable short-form video generation application for content creators
- Leveraged **Google Cloud Functions** and **FFmpeg** to efficiently render videos at scale

TSynth | React, Typescript, Tailwind, Figma

- Built a custom web-based synthesizer with rich modulation capabilities, enabling users to generate unique audio textures with layered oscillators and envelope shaping
- Implemented complex audio signal processing directly in the browser, showcasing advanced understanding of audio engineering and front-end performance
- Designed a sleek, intuitive interface in **Figma**, with fine-tuned control panels and real-time feedback

TrackRack | Typescript, React, Tailwind, Next.js, MySQL, tRPC, Prisma

- Streamlined music production workflow with a centralized web application
- Ensured type-safe APIs using **tRPC** and **Prisma**
- Managed user file uploads via **Amazon S3** and **UploadThing**

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, Python, C/C++, SQL, Go, Bash

Frameworks/Libraries: React, Next.js, Tailwind CSS, Spring Boot, Node.js, Kafka, tRPC, Prisma, Jest

Cloud & Tools: Google Cloud Functions, AWS (S3), Docker, Git, FFmpeg, VS Code, IntelliJ