





# Tobias Livadariu

 [tobias-livadariu.online/portfolio](https://tobias-livadariu.online/portfolio) |  [tlivadar@uwaterloo.ca](mailto:tlivadar@uwaterloo.ca) |  [tobias-livadariu](https://github.com/tobias-livadariu) |  [tobias-livadariu](https://www.linkedin.com/in/tobias-livadariu)

## EDUCATION

### University of Waterloo

Expected April 2029

BSE in Software Engineering (Honours) — CGPA: 91.67/100

Waterloo, ON

**Relevant Coursework:** Object-Oriented Programming, Functional Programming, Linear Algebra, Calculus, Digital Circuits

## TECHNICAL SKILLS

**Languages:** TypeScript, JavaScript, C#, C++, C, Python, Ruby, SQL, HTML, CSS, SCSS, PHP

**Libraries:** React, Redux/RTK, Node, Express, .NET, Flask, Laravel, EF Core, FastAPI, LangChain, Tailwind, Vite, AJAX

**Tools:** Git, Azure (Blob, VM, CosmosDB), Docker, MySQL, MongoDB, WordPress (ACF, Sage), Figma, Electron, Databricks

## EXPERIENCE

### Software Developer

May 2025 – August 2025

IdeaNotion Development Inc.

Markham, ON

#### DealerAI Admin Portal

React, TypeScript, Tailwind, Redux, C#, .NET, OpenAI API, SQL, CosmosDB

- Developed an AI-powered conversation summarization tool using **React**, **OpenAI API**, and **.NET backend**, reducing manual review from **6–10 mins per chat** to **less than 40 secs** across **4500+ daily conversations**
- Revamped the RAG knowledge base page in **React/Redux** with responsive **table of contents** and data-saving fixes, cutting **reported save errors to 0%** and speeding workflows for **150+ client dealerships**
- Built backend controllers in **C#/.NET** with **Azure CosmosDB** to persist user settings beyond session storage, saving **400+ dealership staff 1–2 mins per login** across **thousands of sessions** by eliminating repeated reconfiguration
- Developed a Markdown editor, adopted by lead AI developer, enabling **30% faster** prompt formatting
- Resolved **35+ frontend bugs** and **4** client support requests, contributing to an **18% drop in reported issues**

#### Food Banks Canada Main Website

PHP, Laravel, Sage, WordPress, SCSS, Bootstrap

- Built **15+ reusable ACF blocks** with **PHP/Laravel/WordPress**, simplifying creation of consistent page layouts
- Updated **20+ pages** across English/French sites to match **Figma** designs with responsive, accessible layouts

#### Food Banks Canada Admin Portal

React, TypeScript, Tailwind, RTK Query, C#, .NET, EF Core, SQL

- Migrated and refactored **5 C#/.NET controllers**, **62 endpoints**, and **55 DTO classes**, using **EF Core** to build optimized **SQL** database queries and serve structured data via API endpoints for safe and consistent data transfer
- Rebuilt **5** admin tables in **Material React Table**, reducing workflow steps for staff by **30%**
- Developed **5 RTK Query APIs** in **TypeScript** providing cached, type-safe data access between frontend and backend
- Refactored backend **file upload services** to use the latest **Azure SDK**, increasing maintainability

## PROJECTS

### **LangSketch – Winner @ HTN** | Electron, FastAPI, LangChain, LangGraph, Databricks, Martian September 2025

- Built **Electron app** enabling drag-and-drop design of agentic workflows, compiling them into runnable **Python**
- Built backend in **FastAPI/LangGraph** with **pydantic/uvicorn** to validate inputs and convert workflows into agents
- Integrated **Martian Deimos** router for context-aware model selection, reducing LLM usage costs by up to **60%**
- Connected to **Databricks Delta Lake+Vector Search** to support RAG retrieval and real-time workflow analytics

### **CodeSpeak** | React, Tailwind, Node.js, Flask, SQLAlchemy, Gemini API, Google Cloud March 2025

- Created an intelligent IDE for visually impaired users leveraging **Gemini API** and a neural network verifier
- Built a **React** frontend with keyboard navigation and audio feedback via **Google TTS** and **Flask+Express**

### **BinThere.ai** | React, Flask, Streamlit, YOLO, Roboflow, OpenAI API January 2025

- Built waste-sorting tool with **YOLO+Roboflow** image detection and **OpenAI API** disposal suggestions
- Embedded **Streamlit/Flask** services for real-time analysis, impact tracking, and gamified stats

### **Lights On** | React, TypeScript, Tailwind, Node.js, Express, MongoDB, Azure Dec 2024

- Built a timed puzzle game with leaderboards using **React**, **Node.js/Express** and **MongoDB Atlas**
- Deployed on **Azure Ubuntu VM** with **Nginx** reverse proxy, **Certbot HTTPS**, and **systemd** auto-restarts

### **Calcium Clicker** | Python, Flask, SQL, AJAX August 2024

- Developed an incremental game in **Flask**, using **SQL** and **AJAX** for persistence and dynamic DOM updates