# Jacob Lidstone

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#### **EDUCATION**

## Bachelor of Computer Science

Montreal, QC 2023 – Present

Concordia University

• GPA: 3.6

• 2023-2024 Dean's List

## **EXPERIENCE**

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Senior Cash Accountant

Summer 2024

- Worked with numerous internal systems to resolve issues and complete tasks.
- Tasked with the training of new employees.

Videotron Montreal, QC

Senior Cash Desk Attendant

Summer 2022/2023

- Responsible for customer account status and data processing using scripts.
- Teamwork, issue resolution, and multitasking in a fast-paced environment.

# **PROJECTS**

#### **Brain Tumor Classifier**

2025

Python, NumPy, Pandas, Matplotlib, Seaborn

ML / Computer Vision

- Classified MRI images as tumor/non-tumor; implemented preprocessing, training, and evaluation pipeline.
- Produced clear visualizations and metrics (confusion matrix, ROC) to validate optimized model performance.

#### OpenGL Solar System

2025

C++, OpenGL, GLFW, GLEW, GLM

Computer Graphics

- Built an interactive 3D solar system with a hierarchical scene graph (planets, moons, rings), texture mapping, skybox, and animated orbits/rotations.
- Implemented basic lighting and shader pipeline with camera controls; added an asteroid launcher with collision checks and optimized rendering (VAOs/VBOs) for stable FPS.

# Spring Boot Watchlist & Headline Sentiment Tracker

2025

Java 21, Spring Boot 3, Spring Data JPA, Spring Security, H2, Actuator, Maven

Finance / Backend

- Built an offline market tracker exposing REST APIs for watchlists, headline ingestion, and rolling sentiment (1-day/7-day) with top/bottom leaderboards; data seeded from CSV for reproducible demos.
- Implemented layered services with JPA (H2), HTTP Basic auth with roles, caching (Caffeine) and scheduled refresh, global exception handling, Actuator health/info, and a basic JUnit/SpringBootTest.

## TECHNICAL SKILLS

- Languages: Python, Java, C/C++, JavaScript, SQL, NoSQL
- Frameworks/Libraries: Spring Boot, Spring Data JPA (Hibernate), Spring Security, Spring Boot Actuator, Caffeine Cache, React, Flask, NumPy, PyTorch, Pandas, Matplotlib, TensorFlow, Scikit-learn
- Databases: H2, PostgreSQL
- Systems/Tools: Git, Maven, Docker, Linux, VS Code
- Other: SQL, REST APIs (JSON, DTOs, Jakarta Validation), Scheduling (Spring)

## COURSEWORK

- Core CS: Data Structures & Algorithms, Operating Systems, Object Oriented Programming, Computer Networks, Database Systems, Software Engineering, Web Design, Machine Learning, Computer Vision
- Other: Machine Learning, Data Analytics, Computer Graphics, Computer Architecture, Discrete Mathematics, Linear Algebra, Probability & Statistics, Elementary Numerical Methods, Economics