

# YILIN ZANG

(+1)514-9108868 — zangyilin1997@gmail.com —

## EDUCATION

Université De Montréal  
Bachelor of Computer Science

Sep. 2022 - (Expected) May. 2025  
Montréal, QC

- **Courses**

Database Systems, Algorithms, Data Structures, Human-Machine Interface, Operating System, , Introduction to AI, Software Engineering, Internet Technology, Data science

- **Awards**

Perseverance Scholarship 2024  
Québec Perspective Scholarship 2023 - 2024  
Excellence Scholarship in Science 2023

Le Centre intégré de mécanique, de métallurgie et d'électricité  
Secondary School Vocational Diploma of Industrial Design

Sep. 2017 - Mar. 2019  
Montréal, QC

## SKILLS

**Programming Languages:** Java, JavaScript/TypeScript, Python, C++, C, HTML/CSS, SQL, Shell  
**Development & Tools:** React, Node.js, Maven, Git, GitHub, Docker, Visual Paradigm  
**Operating Systems:** Windows, Linux  
**Languages:** French, English, Mandarin  
**Other Skills:** AutoCAD, SolidWorks

## PROJECTS

### Text Classification — Python

- Implemented a text classification system to identify offensive language using machine learning algorithms
- Preprocessed data and extracted features using **TF-IDF** and **CountVectorizer**.
- Integrated **BERT** embeddings to enhance the classification of complex texts.
- Optimized model performance through **hyperparameter tuning** and **cross-validation** to improve accuracy and efficiency.

### Medical Examination Management System — Java, Design Patterns, MySQL, MVC

- Developed a full-stack medical exam management system in Java to automate patient exam processes.
- Designed and optimized complex queries and indexes for data persistence using **MySQL**.
- Structured the application using **MVC architecture**, enhancing maintainability and simplifying updates.
- Applied **SOLID** principles and integrated design patterns such as **Composite**, **Singleton**, and **Decorator** to improve system modularity and scalability.

### Records Management Website — Node.js, MySQL, bcrypt, JWT, AJAX, Bootstrap

- Developed a multi-user multimedia platform to manage and interact with record collections, using **Node.js** for backend operations and designed a relational database with **MySQL** for efficient data management.
- Implemented secure authentication with **JWT** and protected passwords using **bcrypt**.
- Enabled CRUD operations for records with real-time synchronization across users by utilizing **AJAX** and non-blocking I/O in **Node.js**, alongside a responsive front-end designed with **Bootstrap**.

### E-Commerce Platform — Java, Spring Boot, MongoDB, Bootstrap

- Developed a full-stack e-commerce platform using **Java** and **Spring Boot** for backend services.
- Designed and implemented a **MongoDB** database to manage users, products, and orders, enabling efficient product search, filtering, cart management, and order tracking through optimized queries.
- Created a seller dashboard for product management and order handling, ensuring seamless interaction through a responsive front-end developed with **Bootstrap** and **JavaScript**.

## WORK EXPERIENCE

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### **Imaging Specialist PSI**

*Zimmer CAS*

August 2019 - May 2021

*Montreal, QC*

- Used **Freeform** and **Materialise Mimics** software to create highly accurate 3D bone models from hospital-provided CT scans, facilitating high-precision 3D printing for advanced medical applications.
- Conducted thorough model reviews and evaluations in collaboration with the quality assurance (QA) department to ensure compliance with the highest industry standards.
- Worked collaboratively to optimize workflows, demonstrating strong communication and coordination skills to enhance product quality.