

# DAWIT MERSHA

Computer Science

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## Professional Profile

I'm a fourth-year Bachelor of Engineering (Computer Science) student at York University with 4+ years of hands-on programming and web-development experience. I've built responsive sites using HTML, CSS, and JavaScript—leveraging React, Angular, and Vue.js—and architected back-end services with Firebase Realtime Database. From concept to launch, I designed and developed Ethio Lyrics, an Android app in Java/Android Studio, earning recognition from senior team members. Beyond web and mobile, I've completed projects in database systems—designing schemas, optimizing queries, and ensuring data integrity—and explored Artificial Intelligence through hands-on work with Python, machine learning libraries, and AI workflows. I'm passionate about crafting engaging, user-friendly, and secure interfaces across platforms, and I thrive at the intersection of code, data, and intelligent automation.

## Education & Certifications

**Bachelor of Engineering - BE, Mathematics and Computer Science** 2022 - 2026

York University, Toronto, Canada

Currently pursuing a Bachelor's degree in Computer Science with a focus on software development and artificial intelligence. Coursework includes Introduction to AI and Logic Programming, Database Systems, Software Design, Design and Analysis of Algorithms, Data Structures, Advanced Object Oriented Programming, Computer Organization, and Theory of Computation.

- **Junior Security and QA Analyst Program** 2021  
NPower Canada, Toronto, Canada & Cisco  
  
Completed Junior Security and QA Analyst Program at NPower Canada and earned Cisco Introduction to Packet Tracer certification. Gained valuable skills in cybersecurity fundamentals and network simulation, enhancing my technical foundation in security practices and quality assurance methodologies.
- **High School Diploma A** 2013 - 2017  
Lideta Catholic Cathedral School  
  
Graduated with very great distinction, demonstrating academic excellence and a strong foundation for higher education in computer science and engineering.

## Work Experience

- **Bell Canada** Jun 2022 - Sep 2022  
Toronto, Ontario, Canada  
  
Installed and repaired customer equipment, such as Internet modems and IPTV, demonstrating technical proficiency and problem-solving skills. Engaged in direct customer service by contacting clients before and after service visits, ensuring high satisfaction levels. Explained and sold new and existing Bell products to customers, highlighting communication and sales skills.
- **Cashier** May 2021 - Dec 2021  
Professional Book Fair, Toronto, Ontario, Canada  
  
Managed cashier responsibilities, processing customer transactions efficiently and providing information on various books. Assisted in maintaining store order, ensuring a pleasant shopping environment for customers. Demonstrated strong interpersonal skills and the ability to handle customer inquiries effectively, contributing to a positive customer experience in a literary retail setting.
- **Software Developer** Nov 2017 - Nov 2019  
TechnoLab, Addis Ababa, Ethiopia  
  
Provided technical support for software development projects, contributing to bug fixes and application performance enhancements. Assisted in the documentation process and integrated new applications into phone systems, improving organizational productivity. Collaborated on web development projects, utilizing HTML, CSS, and JavaScript to create and improve responsive web designs, ensuring optimal user experience across various devices.

Offered customer support through phone and email, addressing technical issues and escalating complex problems to senior management.

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# Technical Skills

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## Programming Languages

Python

Java

JavaScript

C++

C

HTML/CSS

## Frameworks & Libraries

React

Bootstrap

Node.js

## Tools & Technologies

PentesterLab

Wireshark

TCPView

John the ripper

Oracle VM Virtual Box

SysInternalsSuite

Nmap/Zenmap

Eclipse

Visual Studio

Android Studio

## Operating Systems

Kali Linux

Windows

Android

iOS

Mac OS

## Applications

Microsoft Office 365

G-Suite

Adobe Photoshop

Adobe Illustrator

## Project Management

Agile

Waterfall

Scrum

Gantt Charts

Kanban boards

Netspot

## Databases

MySQL

Firebase Realtime Database

SQLite

# Projects

## YorkU Parking Booking System

2025

**Technologies Used:** Java, Object-Oriented Programming, UML, Database Systems

Collaborated with a team of five students to design and develop a comprehensive Java-based parking management system for York University, enabling efficient booking and management of campus parking spaces. The development process included analyzing requirements and creating detailed use case diagrams, designing system architecture using UML class diagrams, implementing activity and sequence diagrams for key workflows, developing a GUI-based Java application with sensor integration, and implementing user authentication and role-based access control.

**Challenge:** Designing a system that could handle complex relationships between different user types (students, faculty, staff, visitors) while maintaining data integrity and providing an intuitive interface for booking parking spaces.

**Solution:** Implemented a well-structured object-oriented design with appropriate class hierarchies and relationships, created a clean and intuitive UI with role-based access control, and developed a robust backend system for managing parking spaces and bookings.

## Netflix-Inspired Resume Portfolio

2025

**Technologies Used:** HTML, CSS, JavaScript, CSS Grid, Flexbox, Intersection Observer API

Conceptualized and developed a Netflix-inspired interactive resume portfolio from scratch, creating a unique digital presentation of my professional experience and skills that stands out from traditional resumes. The development process involved wireframing the Netflix-inspired UI concept and user flow, building the HTML structure with semantic markup for accessibility, implementing custom CSS animations and transitions for the Netflix loading effect, creating the profile selection screen with interactive cards, and developing the floating skills background animation using JavaScript.

**Challenge:** Creating a resume that functions both as a portfolio showcase and a professional presentation while maintaining the Netflix aesthetic without compromising content clarity.

**Solution:** Balanced the Netflix visual elements with clear information architecture, ensuring content remains accessible and professional while the interactive elements enhance rather than distract from the resume information.

## Student Management System

2019

**Technologies Used:** Python, Excel, HTML/CSS/JavaScript

Developed a medium-sized student management system for a local school in Addis Ababa, Ethiopia. This practical solution was designed to help administrators track student records, manage attendance, and generate performance reports in an environment with limited technical resources. The system features student registration and profile management, attendance tracking with monthly reporting, grade recording and performance analysis, Excel-based data export for administrative use, a simple web interface for teachers to input grades, and offline functionality for environments with unreliable internet.

**Challenge:** Creating an effective system that could operate in an environment with limited technical infrastructure, intermittent internet connectivity, and varying levels of computer literacy among staff.

**Solution:** Developed a hybrid solution using Python scripts to process data stored in Excel spreadsheets, with a simple web interface for data entry. The system was designed to work offline and synchronize when connectivity was available, making it practical for the local context in Addis Ababa.

## Ethio Lyrics

2019

**Technologies Used:** Java, Android Studio, SQLite, Firebase Realtime Database

Developed a mobile application for Android that provides lyrics for Ethiopian songs, allowing users to search, save favorites, and share lyrics with friends. The app features user authentication and profile management, search functionality by artist, song title, or lyrics, offline access to saved lyrics, social sharing capabilities, and regular content updates to ensure users have access to the latest songs.

**Challenge:** Creating an efficient search algorithm that could handle Amharic text and provide fast results even with limited device resources.

**Solution:** Implemented a custom indexing system that optimized search performance while maintaining a small application footprint.

## Languages

Amharic (Native)

English (Full professional)

French (Elementary)