Basant Hafiz
Software Engineer

Toronto, ON

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Education

BEng Software Engineering	*York University*
Undergraduate student at Lassonde School of Engineering	*SEP 2020- DEC 2025*
Bachelor of Engineering - Architecture Engineering	*Fayoum University, Egypt - June 2011*

Certifications

Meta Front-End Developer (access certificate here)	*Sep 2024*
Programming with JavaScript by Meta (access certificate here)	*July 2024*
HTML and CSS in depth by Meta (access certificate here)	*Aug 2024*

Technical Skills

Programming Languages: Java, JavaScript, C/C++, Python, SQL, Bash

Web Technologies: HTML, CSS, React

Tools & Platforms: IntelliJ IDEA, Visual Studio Code, Git, Linux, MATLAB

Other Skills: Data Analysis, Problem-Solving, Team Collaboration

Experience

Computer Lab Assistant *York University, Toronto, ON- SEP 2022 – APR 2023*

- Managed laboratory equipment configurations, including hardware and software such as lab-test, operating systems like Linux and Windows.
- Provided technical support and guidance to over 100 students daily, assisting with lab experiments and troubleshooting issues.
- Supported researchers with technical tasks, equipment troubleshooting, and experiment setup.
- Conducted routine equipment maintenance and calibration to minimize downtime and enhance reliability.
- Oversaw daily laboratory operations, ensuring compliance with safety standards, cleanliness, and proper resource allocation.
- Applied expertise in Linux system administration, shell scripting, MATLAB, Java, and C to manage operating systems and networks efficiently.

Interior Designer *Upwork.com JUN 2011 – APR 2019*

- Created design concepts, mood boards, and sketches to align with client objectives.
- Developed detailed plans using CAD software and small-scale models.
- Selected materials and finishes within client budgets, providing samples for approval.
- Defined project timelines, budgets, and requirements, ensuring clear communication with clients.
- Sourced materials and products to bring design plans to life.
- Oversaw project execution, inspecting final designs to ensure alignment with client goals.
- Utilized design software and tools to streamline the creative process.

Projects:

Personal portfolio *Toronto, ON- DEC 2024*

- Personal portfolio, GitHub link.
- Designed and developed a personal portfolio website using React, HTML, and JavaScript.
- Built with a responsive design, ensuring compatibility across both desktop and mobile devices.
- Implemented a toggle feature for dark and light themes, allowing users to choose their preferred viewing mode.
- Utilized Visual Studio Code (VSC) for efficient code writing and project management.
- Created an interactive and user-friendly layout to showcase skills, projects, and experience.

- Applied modern web development practices for optimal performance and cross-browser compatibility.

Solution for Booking a Table on the Little Lemon Website *SEP.2024*
Coursera - Meta Front-End Developer Capstone Project: GitHub link

- Developed a web application to facilitate table bookings on the Little Lemon restaurant website as part of the Meta Front-End Developer Capstone project.
- Designed the user interface (UI) to be intuitive, allowing customers to select booking details such as date, time, and number of guests.
- Implemented responsive design techniques to ensure the website is functional on both desktop and mobile devices.
- Integrated JavaScript for dynamic user interactions and validation of booking information.
- Applied front-end development principles such as user experience (UX) optimization, efficient navigation, and accessibility features.
- Collaborated with real-world best practices in web development, utilizing tools like Git and GitHub for version control.

Digital Filters and Noise Removal from Audio Signals *York University -Toronto, ON - DEC 2024*

- Used MATLAB to write code for designing a bandpass FIR filter and removing noise from audio signals.
- Implemented FFT to analyze the noisy signal, identify noise frequencies, and applied time-domain and frequency-domain filtering techniques.
- Created MATLAB plots to visualize the frequency spectrum, filter performance, and cleaned audio signals.
- Validated the filter performance by analyzing time-domain and frequency-domain responses through plots.
- Access code document from here.

Database System Project *York University -Toronto, ON- MAY 2023 - AUG 2023*

- Built a Java-based GUI for data input and displaying MySQL query results.
- Integrated methods to streamline data insertion, retrieval, and backend processes.
- Optimized database performance using SQL Trace, Explain Plan, and SQL Loader.
- Troubleshot and improved database functionality and readability.
- Gained experience in ETL processes, data conversion, and data analysis.

Auto plant watering system *York University -Toronto, ON- JAN 2021 – APR 2021*

- You can view the project in action through the following video: Presentation Video , GitHub link
- Designed and built an automated plant watering system using Arduino microcontrollers and sensors.
- Programmed the system to monitor soil moisture and activate a pump when levels dropped below a set threshold.
- Integrated temperature and humidity sensors to prevent overwatering and optimize plant growth.
- Conducted thorough testing and troubleshooting to ensure system accuracy and reliability.

Arduino-MATLAB Temperature Alert System *Personal project -Toronto, ON- DEC 2021*

- You can view the project in action through the following video: Presentation Video
- Developed a temperature alert system using an Arduino-compatible kit and MATLAB.
- Programmed MATLAB to detect temperature changes and process signals from the Arduino Grove board.
- Configured the Arduino board to trigger an audible alarm, notifying users to manage temperature levels.

Volunteer experience _____

ACSA Food Bank *Toronto, ON- OCT2020- NOV 2021*
- Managed food donations and inventory, ensuring proper tracking and storage.
- Maintained facility cleanliness and adhered to safety standards.
- Assisted participants during food distribution events, ensuring smooth operations and addressing inquiries.
- Collaborated with team members to improve efficiency and enhance the experience for attendees.