Ibrahim Atiq

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Education

McMaster University   Hamilton, Ontario
B.Eng. Computer Engineering   September 2020 - April 2025
Digital System Design, Data Structures & Algorithms, Machine Learning, Algorithm Design, Operating Systems

Work Experience

Magna   Markham, Ontario
Quality Engineering Intern   May 2023 - August 2024

- Improved data accessibility and efficiency with **8** C# applications, transforming data from SQL and SharePoint cloud databases, saving **40+** hours a week on manual data processing.
- Automated daily workflows by developing Python and C# scripts utilizing REST API requests to fetch and upload files to the company L2L website, reducing manual data entry by **80%**.
- Streamlined alert management by designing an automated system using .NET Core, C#, and REST APIs, allowing real-time updates of alerts on SharePoint, reducing manual updates by **15%**.
- Enhanced reporting accuracy by developing Excel macros to automate data presentation and reporting processes from SAP Crystal Reports, saving **7** hours per week in manual effort.
- Improved failure analysis efficiency by collaborating on **20+** cross-departmental projects conducting circuit and software root cause analysis and identifying process improvements, reducing issues by **60%**.
- Increased workflow efficiency by maintaining and enhancing **15+** PowerApps forms and their associated Power Automate flows, improving efficiency by **15%** on daily flows.
- Enhanced decision-making efficiency and data visibility by developing and maintaining **6** high-level Power BI daily reports used by engineering managers, reducing manual efforts by **30** hours a week.

Projects

StockSense Capstone
Python, Java, Spring Boot, AWS, Redis, MySQL, OpenAI, React
- Developing a full-stack app that leverages **generative AI** to provide personalized stock insights from news sources, making financial information more accessible for beginner investors
- Designing a **microservice-based** backend with REST API endpoints to aggregate financial data, providing stock information, sentiment scores, and financial news article summaries.

Material Quality Troubleshooting Tracker
C#, SQL, Power Automate, Power BI
- Developed a centralized Windows app using C# and SQL to standardize troubleshooting procedure, streamlining data entry and log retrieval, reducing reliance on **13** separate data reports.
- Enhanced the application with data manipulation features and integrated REST APIs to enable online dispatches in L2L, increasing troubleshooting efficiency by **90%**.

Pacemaker and Device Controller-Monitor GUI
MATLAB SIMULINK, Python, Microcontroller
- Designed a software package in MATLAB SIMULINK to specify all modes and capabilities of an artificial pacemaker, ensuring accurate and reliable pacemaker functionality.
- Enabled multi-user pacemaker configuration by developing a GUI in Python using Tkinter, allowing users to execute tasks through the pacemaker hardware, improving user interaction and system efficiency.

LIDAR Spatial Mapping
Verilog, C++, Python, TI Microcontroller, ToF sensor, UART, I2C
- Digitally reconstructed room layouts by developing a program in C++ and Python using a Time-of-Flight sensor, stepper motor, and microcontroller to measure distances up to **3** meters via LIDAR.
- Automated coordinate measurement by implementing a push-button circuit and mapping x, y, and z coordinates at **30**-degree intervals using Open3D, enabling spatial mapping and room reconstruction.

Skills

Programming Languages: Python, C/C++, C#, SQL, HTML, CSS, JavaScript, Java, SQL, VBA
Tools and Technologies: React, MySQL, Power BI, Power Automate, Power Apps, .NET Core