Introduction

~30 seconds

I have extensive experience with full stack development, database architecture, and machine learning. In particular, I have extensive experience:

- developing applications for both enterprises and consumers using a variety of web, form, and application frameworks.
- Designing and optimizing databases with a focus on the ETL process and data integration workflows
- Applying machine learning methodologies to solve real-world problems using
  - neural networks
  - search algorithms
  - Large Language Models (LLMs)

Describe areas of Expertise

UHS (Most Recent Experience)

~1 minute, 30 seconds

I contributed to various impactful projects in my recent roles. For example, during my time at UHS, I led a project to modernize our internal reporting platform. Our old reporting platform was a static pdf based program with minimal user interactivity. I recreated those static reports in PowerBI and, along with the nominal paginated reports, I created highly interactive and flexible data visualization tools that let users' query data for any number of facilities going back any number of report cycles. The visualizations I created made it easy to quickly gather trends and we're designed to look clean and modern for use in presentations. To do this I had to reverse-engineer the reports from the old software internal filtering specification, and write complex SQL stored procedures to process this data automatically at intervals so it would be accessible instantaneously and in its entirety.

Another area of my responsibility at this role was creating and debugging SSIS packages. Our clients would approach me with project requests and I was responsible for designing and implementing these ETL processes. This was crucial in providing all business metrics to our executives and investors. I also had the opportunity to apply my knowledge of **C#** and the **.NET** framework - which I have been working with since my first programming class and had practical experience developing with it at my experience at **PFNonwovens**,

PFNonwovens (Oldest Work Experience)

~ 1 minute

PFNonwovens specializes in creating nonwoven materials for use in surgical gowns, diapers, and sanitary pads. The manufacturing process required a careful and methodical startup of machinery through the many product lines and I with a co-developer on creating a program which would monitor the start up process in real time and instruct the operators in each step of the sequence as well as notifying them when parameters were set incorrectly. The programs were designed to be open for future extension and flexible to be quickly encompass new products with different startup and treatment procedures. I also worked on optimizing the programs for **golden runs** using histo
rical sensor data and regression analysis.

Tools

~ 30 seconds

My major tools include

Python, with a focus on

- Django
- Machine Learning Tools:
    - PyTorch
    - OpenCV
    - Numpy
    - Scikitlearn
    - Seaborn

Microsoft technologies such as:

- C#
- VBA
- .NET framework
- Power Platform
    - Power BI
    - Power Automate

with regards to databases, i have worked with:

- SQL & SQL Server

- Azure
- MongoDB
- Developing Stored Procedures

Closing

~30 seconds

I have also amassed experience both as a team member and project leader.

For example

- I led my school capstone team in developing a fully autonomous robot. I delegated work to my team mates and developed the path planning algorithm the robot used.
- I also helped develop an android application to help users find cheap and nearby grocery items optimizing for cost and proximity.