

# SHAWN BYRNE

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## EXPERIENCE

### CLINICAL ENGINEER, NORTH TEXAS VHA

August 2021 – *Present*

*Full Time*

- Created department specific SQL databases to organize medical device information for easier access and streamlined management. The ongoing project consists of analyzing and cleaning previous structured and unstructured SQL datasets.
- Utilized SQL to analyze large datasets of medical devices, patient monitoring systems, electronic health records (EHRs), or other hospital systems. Rescripted multiple SQL queries to help extract and aggregate relevant data, perform statistical analysis, and generate reports for research purposes, quality improvement projects, or performance evaluations.
- Compiled data analysis into reports using Excel and Word to present the current status of Key Performance Indicators (KPIs) every quarter of the year.
- Collaborated with a diverse range of stakeholders, including healthcare providers, administrators, and regulatory bodies, to develop and implement multiple new patient-centered care initiatives. Led cross-functional meetings, actively solicited feedback, and incorporated stakeholder input to ensure alignment and buy-in throughout the project. Resulted in improved communication and coordination among stakeholders, leading to enhanced patient experience and streamlined care delivery.
- Organized and completed all FY 21-22 medical device support contracts by establishing an ongoing contract tracking system with Excel in collaboration with the staff engineers, contractors, and local contracting office.
- Formalized and customized a 5-year medical device planning guide for 10 departments by analyzing various data variables such as financial considerations, equipment life expectancy, service requirements, preventative maintenance schedules, and project timelines.

### PERSONAL PROJECT, PYTHON-BASED GAME

- Used OOP principles to implement game mechanics, such as collision detection, displaying the user interface, and player movement.
- Implemented algorithms for game AI for entities to exhibit intelligent behavior for a challenging experience.
- Leveraged existing libraries, such as Pygame, and efficient coding techniques, such as data structures, memory management, and improving the algorithm, to enhance game efficiencies and incorporate existing functionalities.

### PERSONAL PROJECT, RECIPE DATABASE

- Developed an SQL-based recipe database by using MySQL to efficiently store and manage recipe data.
- Created SQL queries for retrieving stored recipe instructions and ingredient information.
- Currently integrating functionality to calculate nutritional values and serving sizes dynamically.

## EDUCATION

[M.S. Biomedical Engineering](#), University of Connecticut – Storrs, CT

May 2023

GPA: 3.80/4.00

[B.S. Biomedical Engineering](#), University of Maryland – College Park, MD

May 2021

GPA: 3.67/4.00