Brad Wilson

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"My passion is to determine and measure challenges and deficiencies within the workplace, analyze the process, create solutions, improve work flow, and maintain efficient functionality."

EDUCATION

Virginia Commonwealth University, Richmond VA.

Bachelor of Science in Information Systems   *December 2017*

Major GPA: 3.58 (4.0)

Council for Six Sigma Certification   *August 2019*
Six Sigma White Belt (6σ)

Dapp University   *August 2021*
Blockchain Developer Boot Camp

National Association for Healthcare Quality   *Pending 2021*

Certified Professional in Healthcare Quality (CPHQ)

RELEVANT COURSEWORK

- Systems Analysis and Design   *- Information Systems Planning & Project Management*

- Business Intelligence & Data Mining   *- Information Technology Infrastructure*

- Database Systems   *- Fundamentals of Data Communications*

- Information Systems Development Projects   *- Intermediate Programming*

- E-Business Technology   *- Advanced Networking & Security*

-Information Systems Security

SKILLS

Data Analysis

- SQL Programming Language – **5 years**
- SQL Database Maintenance – **4 years**
- Entity Relationship Diagramming – **4 years**
- Database Development FE/BE – **3 years**
- Data Mining/Analysis/Modeling – **5 years**
- Statistical Analysis - **5 Years**
- Data Visualization – **5 Years**
- Data Security – **3 years**
- ODBC Data Sources – **3 Years**
- Data Warehousing – **3 Years**
- Power BI Data Analysis – **4 Years**
- Machine Learning – **3 Years**
- Data Forecasting – **3 years**
- Microsoft Excel – **8 years**
- Tableau – **1 Year**
- MariaDB – **1 Year**
- Python Programming – **1 Year**

Coding & Programming

- Crypto Currency Blockchain Knowledge – **1 Year**
- Solidity Ethereum Programming **– < 1 Year**
- JavaScript Programming Language **– 2 years**
- Visual Basic Programming – **3 years**
- HTML & Bootstrap Programming – **3 Years**
- GIT, Node, Truffle, Python Terminals – **2 Years**
- C# & C++ Programming Languages – **1 Year**
- BAT, HTA, VBS, & Registry Scripting – **3 Years**

Quality Management

- Performance Improvement Plans – **3 Years**
- Professional Presentation Skills – **3 Years**
- Facility Committee Facilitation – **3 Years**
- Failure Mode Effects Analysis **– 2 Years**
- Root Cause Analysis **– 2 Years**
- Project Management – **3 years**
- Administrative Council – **2 years**
- Employee Quality Education – **3 years**

Network & Windows

- Windows Server 2008 - 2016 – **3 years**
- Active Directory, DHCP, DNS Server – **2 years**
- Group Policy & Organizational Units – **2 years**
- Virtual Box OS Implementation – **3 years**
- Network Permissions – **3 years**
- LAN/WAN Administration - **5 Years**
- VPN Client Administration– **2 years**
- Wireshark, Metasploit, Nexspose - **1 Year**

Soft Skills

- Strong & Efficient Work Ethic
- Problem Solving & Brainstorming
- Executive Leadership Skills
- Teamwork, Facilitation, & Follow Through
- Attention to Detail & Resilience
- Ability to work under high pressure & deliver
- Time Management
- Situational Awareness

RELEVANT EXPERIENCE

Eastern State Hospital   Williamsburg, VA.

Quality Management Data Scientist/Analyst   *September 2019 - Present*

- Manager of the Quality Assurance Performance Improvement Program (QAPI).

- Lead data collection approach, analysis, and presentation to justify a 1 million dollar budget increase for the facility.

- Revolutionized the facility's data usage by introducing new age of data analytics and artificial intelligence software (Power BI), creating an educational course for Power BI, and developing the QAPI Centralized Database Information System.

- Investigated, monitored, and created new data and data sources to find areas for performance improvement projects to prevent reoccurrence of adverse events and achieve compliance with state and federal regulations. ***Please refer to Notable Performance Improvement Projects section below for more detailed data usage and corrective actions implementation.***

- Collected data from medical records, external facility databases, and other sources in order to compile and process complex reports in support of Quality Management and Hospital Administration.

- Responsibility and communication of data collection and reporting requirements for dLCV, LHRC, and other state and/or local government entities alike.

- Oversaw many data repositories to ensure they are current and accurate with responsibility for forecasting and analyzing data.

- Presented many professional presentations for front line employees, committee members, senior leaders, and executive leadership teams.

- Worked with multiple department managers to solve problems using the Plan-Do-Study-Act (PDSA) and carrying out the cycle as needed.

- Provided quality education to health care providers to ensure compliance with quality standards and parameters.

- Translated quality issues, data outcomes, and industry standards into understandable, user friendly terms.

Eastern State Hospital   Williamsburg, VA.

HRIS Specialist   *March 2018 – September 2019*

- Gathered all necessary materials including data, files, and any other additional requests for The Joint Commission.

- Provided high level administrative and technical support to the Human Resource Department, as well as maintaining internal & external HR Databases.

- Direct & maintain all computer systems and IT solutions within the HR Department.

- Maintain data regarding turnover, applicant flow, vacancy, drug & alcohol testing, licensure, and employee transfers.

- Produce complex reports regarding HR data, and modifying reports for streamlining processes.

- Handle of sensitive data, including Social Security Numbers, Addresses, Salaries, and other Personal information.

- Attended administrative or professional meetings, and facilitating solutions or statistical evidence for situations regarding the hospital.
- Communicate and provides tactful customer service to all employees and individuals alike with a respectful and caring attitude.

Stand-Alone IT Business   West Point VA.

Computer Tech / Consultant / IT Project Manager   *January 2013 – Present*

- Manage and Plan IT projects including hardware needs assessment, hardware procurement, scheduled hardware installations, systems checks, software installation, user training/implementation, regular maintenance, and user troubleshooting/consultation.
- Installed computer Operating Systems, disk management as needed upon scope of installation, including multiple boot drives, partitioning drives, IDE configuration and component frequencies.
- Constructed full computer towers with all necessary components; as well as created scope of all components and their specifications for the build.
- Maintenance of laptop & desktop internal & external components; as well as trouble shooting component problems.
- Sustenance of all Windows settings, programs, installations, virus protection, and system clean up.
- Served as Computer Hardware and Software Decision Consultant.
- Designed and Coded with PHP, HTML, and BOOTSRAP to create fully functional Websites for clients.
- Versed in a wealth of knowledge of IT programs, terminology, and skills to teach others new processes.

Hand n' Heart Home Care Services   Williamsburg, VA.

Personal Care Aid   *April 2015 – March 2018*

- Prepared and maintain records of client progress and services performed, reporting changes in client condition to manager or supervisor.
- Gave undivided attention to what other people are saying, take time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times.
- Enter, transcribe, record, store, or maintain information in written or electronic form.
- Display knowledge of human behavior and performance; individual differences in ability, personality, and interests; learning and motivation; psychological research methods; and the assessment and treatment of behavioral and affective disorders.

POWER BI & DATABASE DEVELOPMENT

The Power BI Effect

- Hand-picked by the Hospital Director to create a data repository to include patient seclusion, falls, restraints, combative behavior, and other related data to identify trends and propose corrective actions.

  Utilized the data repositories to facilitate the Power BI Effect Project working with the IT department to collaborate and gather the means to launch the initiative. The Power BI effect included coding, programming, designing and data mining two dashboards providing detailed root cause, and failure mode effects analysis.

- Utilized the Power BI program to provide detailed Human Resource data analysis to the Hospital Director including turnover, vacancies, new hires, separations, disability statuses, and other related data in real-time allowing for quick and easy access.
- Created educational Power BI course consisting of 5 main chapters covering the basics to the most complex functions and DAX programming of the application. Enabling employees that want to learn to use the program proficiently and add a new level of data awareness across the hospital.
- Drastically expanded Power BI usage with the creation of the QAPI Centralized Database Platform. This platform; described in more depth below, uses a front end database deployed to many computers on the network to bring in over 22 different departments data to the backend data warehouse. This data is then directly brought into Power BI for daily administrative usage.

Quality Assurance Performance Improvement Centralized Database Platform (Est. 2019)

- Developed new proprietary application software to retrieve quality data measures from 22 different departments around the hospital, and provide the need of a centralized information system for their specified department.

- The back end database is secured using a Maria DB SQL Database Protocol. The server the database lives on is under camera surveillance; which is all in compliance with HIPAA regulatory guidelines.

- The front end database is placed on a universally accessible network location with admin granted access, and automatically initializes/deploys and updates when users opens desktop icon through BAT file commands.

- Created user rights system to give department's access to edit and submit for their own specific data only, but still have the ability to have read-only access to other department's data as well.

- Users submit their departmental data on a monthly or daily basis, based on the quality data measures determined by the Governing Board & QAPI Committee; which is then monitored and tracked by administration with a live data feed to Power BI.

- Along with data submission, the departments will upload electronic backup documentation that is automatically routed to a specific network location based on the current year and month. This is accomplished by using visual basic coding, and a simple front end submission from the user.

- The database has the Ability for in-depth department specific application development implementation for meaningful data entry, and live stream of data directly to Power BI Dashboards; which are readily available to administration (Examples include: Centralized Staffing Database, Student Affiliation Database, Hospital Code Database, Clinical Audit Database, Medication Variance Database, Employee Repository Database, and Near Miss Database, Incident Tracker Database, Medical Record Delinquency Database, etc.).

Development of New Eastern State Hospital HR Database (Est. 2018)

- Developed new proprietary HR database software from ground up including Alpha, Beta, and initial release stages.

- Replaced all illogical data within table relations, creating new relationships that better serve the customer base and design function.

- Created completely new App interface, including new user friendly menu, as well as easy to use HR transactions & streamlined Interfaces.

- Implemented Front End & Back End Databases for use over the network environment.

- Secured, encrypted, and hardened database with complex code, rotating cipher, xml ribbon manipulation, and user permissions.

- Protected the integrity of all data by creating user app rights, lockouts, and prevention of user error.

- Gutted complete HR reporting system, redeveloping all queries, and programming reports for specified delegation.

- Documented all new versions with detailed information regarding what was implemented in each version.

- Rejuvenated data link between HR and IT departments by streamlining batch files, SQL relationship queries, and self-sufficient task scheduler processes; increasing operation speed, reducing waste and confusion.

LEADERSHIP

- Recognized by the Hospital Director as the go to informational technology database expert, who is able to provide succinctly and at a moment's notice to the executive and audit teams

- Appointed as Spokesperson by Hospital Director to lead initiative for the program Power BI for use across the Commonwealth of Virginia's Department of Behavioral Health and Human Services. Facilitated the transaction showing the benefits of the program and improved process for the Commonwealth.

- Facilitated Monthly QAPI Committee meetings reviewing quality objectives, influencing open discussion, and steering the meeting according to the specified agenda and time frame.

- Revitalized the recruitment department work flow, physically and electronically by centralizing documentation; thereby also reducing confusion, loss, and error. This was achieved by scanning and uploading documents to the state network, and initiating new and improved office work stations for the department.

- Work closely with the Finance Director to determine when to establish and abolish employee positions directly impacting hospital budget efficiency to achieve maximum results.

- Initiate hospital performance improvement plans with all major department heads; along with the executive leadership team, to implement corrective measures, improve processes, and sustain all progress achieved. Upholding the mission and vision of the hospital to offer the very best care to all patients admitted.

NOTEWORTHY PERFORMANCE IMPROVEMENT PLANS

Staffing, Safety, and Census Data Triage

- Worked closely with former DBHDS Commissioner to develop Staffing, Safety, and Census Structured Approach. Discussing different broad directions of strategical improvement including hiring and staff scheduling, reduction of patient aggression on a unit-by-unit basis, reduction of length of stay based on legal status, managing census and preventing overcrowding, rate of discharging patients, reducing overall bed days, and preventing patient diversions.

- Gathered executive leadership team on monthly basis for the ESH Action Plan Meeting to discuss current trends; properly educating and informing leadership of the status and current direction of the hospital.

- Data created a revitalized structure of reporting for all of the hospital's key leadership roles, influencing educated decision making enabling leadership to visualize what is going on around the hospital as a whole.

- Sustained awareness of Staffing, Safety, and Census by tailoring Power BI dashboards to directly emphasize these areas of concern. Giving leadership access to live data dashboards.

Medical Records Delinquency Rate Improvement

- Uncovered and organized untouched raw data pertaining to medical record delinquencies for clinical disciplines, deficiency date, hospital location, delinquency type, and other specified details.

- Worked with Health Information Management (HIM) Department to prioritize delinquencies in specific areas, beginning with multiple Performance Improvement Plans including Nursing Forms & Signature Assurance, and Discharge Summary Process Flow Development.

- Initiated plan of correction with Nursing department and HIM to schedule weekly RN unit manager sessions to sign off or fix any outstanding nursing paperwork that is considered delinquent.

- Performed discharge summary file paper audit to assure documents were present, and where all delinquent files were located. Discovered the process was different across both buildings at ESH, so process value stream and flow was assess by Quality Management and Medical Affairs to create a more efficient process.

- Improved delinquencies decreasing them by 64%; which was done by innovating new processes and the direction and retrieval of data for employees enabling them to have better outlook on how to prioritize their job duties.

Treatment Team Standardization

- Performed treatment team audits across hospital units focusing on the NGRI population.

- Utilized standardized form for audits to assess the structure, pace, tone, goals, attendance, participation, treatment needs, medication changes, collaborative decision making, and if the meeting was affecting the patient in a positive way overall.

- Created Universal Audit Tool within the QAPI Database Platform to allow treatment team auditors to enter their results into a user friendly interface for data collection. In addition to the ability of the database platform to perform future audits alike.

- Reported data to Executive Leadership on areas of success and which needed improvement. Enabling each clinical discipline department head to make the correct adjustments.

- Resulted in treatment team structure, chemistry, and cohesiveness that greatly improved the quality of care and wellbeing of the patients attending the meetings. The hospital saw an average improvement of 37% in over 7 different main audit categories monitored.

Mandated Shift Decrease Endeavor

- Requested new data to be logged according to Nursing Mandated Shifts, Voluntary Shifts, and Call Outs to analyze and determine level of effect and severity on the hospital and its nursing staff.

- Worked with Staffing Resource Department and Nursing Leadership to develop and tailor new data entry platform to report staffing shifts and help the department maintain, understand, report, and visualize all of their staffing functions. The program opened many new avenues of data that were not previously possible, creating an easy direction for nursing to handle staffing problems and irregularities.

- New data entry program was used to monitor and ultimately make the educated decision to switch from centralized staffing to on-unit staffing. Allowing individual units to manage scheduling on their own, and preventing staff from being pulled to other units inefficiently.

- Once nursing staff scheduling was shifted from centralized to on-unit the hospital saw a 61% decrease in mandated shifts over a four month span, continuing to sustain positive levels throughout the following months after that.

Other Notable PI Plans

- Patient Aggression against Staff Severity Leveling System – Developing an addition to the QAPI database to merge both the Human Resource & Risk Management Departments in a seamless data process regarding staff injuries from patient aggression incidents.

- Clinical Student (Intern/Extern) School Affiliation – Aided in the process of creating a new intern/extern structure and policy, as well as developing an addition to the QAPI Database to merge Human Resources, Staff Training, and Purchasing Departments regarding the school contract affiliation process.

- Hospital Wide Intercom Code System – Developed a QAPI program to replace the paper logging system of individual hospital codes within the information center. Now all codes are logged electronically through the database platform. This allows for easy data collection for increased safety awareness at ESH.

- Medication Variances Reporting System – Developing an addition to the QAPI database to introduce the first medication variances logging and reporting program that the hospital has had in its history. This will greatly aid in the process of the current FMEA being implemented between Nursing, Pharmacy, and Medical Affairs Departments.