

Hugh Welch

SENIOR STRATEGIC INNOVATIONS ANALYST

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Hugh Welch has been a public servant with the Veterans Health Administration for over 15 years, specializing in combining principals from Data Science, Visualization, and Lean Six Sigma with Human Centered Design to guide improvements in Veteran Healthcare.

Accomplishments

Awards

RECOGNIZED FOR MULTIPLE EFFORTS IN HEALTHCARE INNOVATION AND IMPROVEMENT

- Recipient of the 2018 South Carolina Hospital Association Lewis Blackman Patient Safety Champion Award for Innovation & Research
- Recipient of 2018 Veterans Healthcare Administration Southeastern Network Idea House First Place Award for Individual Achievement

Data Science, Analytics, & Communication

ADEPT AT GENERATING KEY INSIGHTS FROM COMPLEX DATA AND EFFECTIVELY COMMUNICATING TO WIDE RANGING AUDIENCES

- Developed a suite of open source healthcare informatics products in use at VHA facilities nationwide empowering executive leaders to make data supported decisions in areas ranging from patient healthcare access to national pandemic response
- Reduced COVID-19 appointment cancellations from 19% to 5.9% through early pandemic development of impact models and tools to facilitate a shift to virtual care modalities such as VA Video Connect
- Developed Natural Language Processing algorithm to match 400K rideshare pilot program records with known VHA patients to evaluate impact on care
- Developed a suite of open source COVID-19 data support tools in use across the Southeast

Leadership

PROVEN HISTORY OF FORMAL AND INFORMAL LEADERSHIP

- Founding member of the Columbia VAHCS Healthcare Data Center. To date, the Center has hosted guests seeking best practices to include: Secretary of Veteran Affairs, Dean of the Darla Moore School of Business, President of the South Carolina Hospital Association, and executive leadership from various local healthcare organizations
- Lead improvements in 19 standard healthcare quality measures
- Automation programs adopted by multiple VHA facilities as best practice
- Graduate of highly selective VISN 7 Veterans Healthcare Administration Southeastern Network Leadership Development Program
- Graduate of highly selective mid-level leadership development program
- Hosted national monthly VHA analytics virtual collaboration

Process Improvement

SKILLED IN CREATING TANGIBLE IMPROVEMENTS TO VETERAN CARE

- Decreased the percent of scheduled appointments outside target wait by 18.1 percentage points over a three month period through identification of lead process measures and development of open source tracking and corrective tools
- Reduced disaster notification first contact attempts by 94% through development of SQL based "Phone Alert Prioritization Algorithm"
- Decreased 30 day hospital readmissions of Congestive Heart Failure patients by 55% via consult error proofing and automation
- Achieved Lean Six Sigma Black Belt Certification for reducing Emergency Department patient wait times by 42% over 90 days without additional resources
- Reduced Patient Complaint resolution times by 78% through restructuring of data capture processes and report automation
- Reduced yearly pharmacy costs by \$45,000 through a series of process improvement projects

Speaking Engagements

EXPERIENCED IN PUBLIC SPEAKING TO LARGE PROFESSIONAL ORGANIZATIONS

- Faculty speaker for the 2022 American College of Healthcare Executives Congress on the topic of combining principals from the fields of Lean Six Sigma, Human Centered Design, and Data Science, Analytics, & Visualization
- Selected as presenter for the 2021 American College of Healthcare Executives Congress Management Innovations Exchange on the topic of Transforming Healthcare Through Applied Data Science, and co-author of two additional selected presentations
- Faculty speaker for the 2021 University of South Carolina National Big Data Health Conference on the topic of Rapidly Developed Field-Based Analytics

Work History

Senior Strategic Innovations Analyst

CENTER FOR CARE AND PAYMENT INNOVATION

- Grade: GS13, Hours: 40 hrs/wk

COVID-19 Vaccine Measurement/Data Analyst

VHA COVID-19 VACCINE INTERAGENCY PARTNERSHIP(S) WORKGROUP

- Grade: GS13, Hours: 50% Detail

Management Analyst

OFFICE OF THE DIRECTOR

- Grade: GS13, Hours: 40 hrs/wk

Performance Improvement Coordinator

OFFICE OF PROCESS IMPROVEMENT

- Grade: GS12, Hours: 40 hrs/wk

Process Improvement Consultant

OFFICE OF PROCESS IMPROVEMENT

- Grade: GS11, Hours: 40 hrs/wk

Program Analyst

STAKEHOLDER RELATIONS

- Grade: GS7, Hours: 40 hrs/wk

Pharmacy Technician

PHARMACY

- Grade: GS6, Hours: 40 hrs/wk

Oct 2022 to Present

VHA Office of Healthcare Innovation and Learning

Mar 2021 to Jun 2021

VHA National Center for Health Promotion and Disease Prevention

Dec 2020 to Oct 2022

Columbia VA Healthcare System

Feb 2019 to Dec 2020

Columbia VA Healthcare System

Jun 2016 to Feb 2019

Columbia VA Healthcare System

Nov 2014 to Jun 2016

Columbia VA Healthcare System

Mar 2008 to Nov 2014

Columbia VA Healthcare System

Professional Skills

- Employing principals of Human Centered Design to create easily interpretable informatics products that uncover and communicate insights to audiences ranging from front-line staff to VACO executive leadership
- Communicating highly complex analytics concepts with minimal requirement of audience technical expertise
- Leading multidisciplinary, cross-functional process improvement projects requiring high levels of planning, prioritization, and coordination
- Planning, coordinating, and leading projects comprised of stakeholders with potentially opposing priorities
- Leading data generation, collection, and analysis to support national pilot effectiveness
- Identifying statistically appropriate performance and process metrics
- Leading development, analysis, and implementation of policy and procedures
- Deploying Natural Language Processing techniques to discover patterns hidden in unstructured text data
- Open source statistical programming language development
- Predictive Data Modeling and Advanced Analytics
- SQL development for data extraction, transformation, and movement
- Strategic & Operational dashboard development
- Lean Six Sigma Green and Yellow Belt Mentorship
- Lean Six Sigma Black Belt; Instructor for Green and Yellow Belt
- Tableau data visualization and dashboard development

Responsibilities

Senior Strategic Innovations Analyst

VA CENTRAL OFFICE DUTIES AND RESPONSIBILITIES

- Weekly briefings to VA Central Office Executive Leadership
- Acting Strategic Analytics Team Lead

Management Analyst

FACILITY EXECUTIVE SUPPORT DUTIES AND RESPONSIBILITIES

- Daily briefing of facility leadership on complex systems and process drivers
- Development of automated data extraction, transformation, and loading (ETL) processes for nightly execution across multiple relational databases
- Managing critical information flow between multiple VHA facilities using SharePoint, Light Electronic Action Framework (LEAF), and web based data visualization
- Leading rapid cycle improvement initiatives at the facility and network level
- Supporting the ever-evolving data needs of the organization by producing reliable, intuitive, and user-friendly informatics products built with the intent to facilitate future scalability and exportability
- Detailed to the VHA COVID-19 Vaccine Interagency Partnership by the Deputy Assistant Under Secretary for Medical Center Director Health Operations

Performance Improvement Coordinator

SERVICE LEADERSHIP SUPPORT DUTIES AND RESPONSIBILITIES

- Leading weekly reports to service and executive leadership on lead performance metrics
- Conducting regular analysis of multivariate healthcare quality data
- Serving as data subject matter expert for variety of facility committees, workgroups, root cause analyses (RCAs), and projects
- Co-chair of the Process Improvement Committee
- Leading multiple concurrent process improvement projects
- Conducting Black Belt level process measure analytics for all facility projects
- Monthly facility leadership report on project progress and sustainment

Software

HIGHLY SKILLED IN THE FOLLOWING APPLICATIONS

- Microsoft: Office, Power BI, Word, Power Pivot, PowerPoint, Excel, Outlook, SharePoint, Visio, Teams, Forms, & Stream
- SQL, SQL Server Management Studios, Corporate Data Warehouse (CDW)
- Pyramid Analytics
- Palantir
- R Studio, Base R, & Tidyverse
- Light Electronic Action Framework (LEAF)
- Salesforce
- Tableau & Tableau Prep
- Visual Basic for Applications

Education

Bachelor of Science in Biology

UNIVERSITY OF SOUTH CAROLINA

Associate of Technology in Pharmacy

MIDLANDS TECHNICAL COLLEGE

VA Leadership Upward Expectations (VALUE)

VETERANS INTEGRATED SERVICE NETWORK 7

Columbia VAHCS, Leadership Effectiveness, Accountability, & Development (LEAD)

COLUMBIA VAHCS

Lean Six Sigma Black Belt

AIR ACADEMY ASSOCIATES

Lean Six Sigma Green Belt

VERC

Lean Six Sigma Yellow Belt

VERC

References

Bobby Marshall

MANAGEMENT ANALYST

- Location: Columbia VA Healthcare System
- Relationship: Former Coworker
- Phone: (803) 209-8096
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Jeff Soots

ASSOCIATE DIRECTOR, CHIEF OF OPERATIONS

- Location: Columbia VA Healthcare System
- Relationship: Former Supervisor
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Lisa Nashton

CHANGE MANAGER

- Location: VHA Office of Healthcare Transformation
- Relationship: Former Supervisor
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