

# Nathaniel Greg Pendley

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## SUMMARY:

Experienced IT Business Operations Developer with a proven record of designing end-to-end automation solutions that enhance data accuracy, workflow efficiency, and system reliability. Skilled in Python, SQL, PowerShell, SPFx, React, and Spotfire, with experience developing enterprise web applications, data pipelines, and reporting systems in oil and gas and energy sectors. Known for delivering scalable tools that bridge business and technical requirements across multidisciplinary teams.

## SKILLS

SQL | Python | Angular | React | Yeoman | SPFx | PowerShell | HTML | Js | PowerBi | Spotfire | Excel | Word | PowerPoint | Projects | SharePoint | SSMS | Visual Studio | JIRA | Drafting and Analysis | Code Compliance | Lean Manufacturing Techniques | Engineering Analysis | Project Management | Design Analysis | Electrical Theory | Advanced Inspection | Techniques | Dimensional Competency | Coordinate Measurement Machines | Advanced Ultrasonic Equipment | Technical Writing | GD&T | API Ultrasonic Inspection | Electrical Circuits | Team Building | Go-to person | Management | Leading

## INDUSTRY EXPERIENCE:

### Coterra Energy Inc.

#### *IT Business Operations Developer*

**August 2023 – October 2025**

**Houston, Texas**

- Designed and implemented full ETL pipelines for oil & gas production data sourced from Merrick, FlowCal, and other field systems—leveraging Python, PowerShell, and batch automation to ingest, validate, and transform large customer datasets into Microsoft SQL Server. Incorporated advanced T-SQL, error-handling logic, and HTML/CSS-based reporting dashboards to streamline quality control and data transparency for analysts.
- Developed and maintained Spotfire reports and dashboards, managing both front-end visualizations and back-end data connections. Collaborated with data engineers to troubleshoot pipeline issues, optimize SQL queries, and ensure accurate real-time reporting for operations and management.
- Automated FTP ingestion workflows by developing a Python service that analyzes incoming flat files, normalizes datatypes, executes secure database inserts, logs results, and dispatches real-time email notifications—reducing manual intervention and turnaround time from hours to minutes.
- Created enterprise automation scripts in Python and PowerShell to handle IT operational tasks such as server-ping monitoring, Active Directory updates, and scheduled database maintenance. Delivered a field-worker interface in Excel with live data connectivity, edit tracking, and robust error handling.
- Built internal web applications using Flask, HTML/CSS/JavaScript, and RESTful APIs, allowing non-technical staff to securely manage file operations, AD data, and distribution list rules through browser-based interfaces with authentication and persistent activity logs.
- Led SharePoint front-end development of the BookingApp (SPFx + React + TypeScript) to manage company event reservations, integrating multiple SharePoint lists via REST (SPHttpClient) with real-time session tracking, schedule validation, and dynamic confirmation workflows.
- Partnered with cross-functional data, operations, and BI teams to modernize legacy workflows and build resilient on-prem/cloud integrations, improving system uptime, data accuracy, and overall operational efficiency.

### Tory Technologies

#### *Business Analyst*

**August 2021 – August 2023**

**Houston, Texas**

- Led major control room management software implementations of MaCRoM© (Master Control Room Management) for major energy service providers such as Marathon, Energy Transfer, Calpine and Wolverine, while meeting tight go-live deadlines.
- Analyzing customer business structures, processes, and equipment in preparation to load and configure this information within the control management software.
- Designed all aspects of SSMS Enterprise and Express TSQL back-end control room management architecture such as TSQL server reporting, TSQL triggers and stored procedures, query design and troubleshooting business process hierarchy.

- Configured all parts of SQL server reporting services set up, including SQL reports, database configuration, and help develop tools to automate process.
- Interfacing with customers on a daily, weekly, and monthly basis to troubleshoot most front and back-end issues involving business process bottlenecks and educating customers on new and existing features to meet their specific needs.
- Key participant and co-developer in the implementation of JIRA ticket tracking which decreased customer issue resolution time and improved overall customer product satisfaction.

## **Armorock**

### ***Design Engineer***

**December 2020 – May 2021**

**Sulfur Springs, Texas**

- Leading value engineering projects directed at weight reduction of cast polymerized concrete pieces, while retaining structural integrity per state civil engineering related requirements.
- Designing various casting structures for large irregular shaped waste-water containment systems along with writing a program that provides accurate length estimates for fiberglass rebar reinforcement based on cross sectional structure geometry.
- Expanded solid modeling competency in six axis Kuka robot programing performed by automated manufacturing.

### ***Process Engineer***

**August 2020 – December 2020**

**Sulfur Springs, Texas**

- Optimized processes related to the manufacture of polymerized concrete waste-water containment systems by removing wasted movements.
- Implemented lean manufacturing principals and instituted a 5S style monitoring program to ensure continued improvement.

## **Tenaris-Hydril**

### ***Inspection Process Improvement Specialist***

**February 2019 – April 2020**

**Houston, Texas**

- Developed tools and strategies that resulted in an average of twice as many inspections being performed per week compared to the previous budget year due to a reduction of manual administrative tasks. This allowed inspectors to discover more critical defects and ensure that the best possible products were delivered to our customers.
- Designed and implemented a 5S audit program for the rig parts return area resulting in zero safety related events, reduced inspection times, and improved ability to indicate rejects.
- Expanded the capability of a Microsoft SharePoint site which improved data collection and added custom automated SharePoint workflows that drastically improved the communication of that data.
- Developed custom VBA macros and user forms that further improved data analysis and collection.
- Developed tools within Microsoft Power BI and Power Query that reduced analysis time.
- Created each tool and process to be easily understood and maintained with little technical knowledge through simple and effective design.

## **National Oilwell Varco**

### ***Dimensional Inspection Specialist***

**September 2018 – February 2019**

**Houston, Texas**

- Performed specialized dimensional inspection techniques such as advanced non-destructive ultrasonic testing, and coordinate measuring machines.
- Coordinating liaison between vendors and buyers during documentation and product discrepancies to reach resolutions which reduced production lead times by 10% by creating a simple database and macros that automated communication.
- Re-designed the receiving inspection area, procedures, and practices to reach optimum efficiency of movement through process analysis.

### ***Quality Assurance Shift Leader (NOV)***

**April 2017 – September 2018**

**Houston, Texas**

- Managed all inspection and quality activities associated with the manufacturing activities for night-shift operations related to geometric dimensions and tolerances for mud motor stators (progressive cavity pump stators) constructed of OCTG tubing.
- Mastered various gauges and other applicable measuring devices and provided support to the quality staff in the way of determining the compliance status of critical parts and components.
- Developed VBA macros that accurately, and quickly calculated critical values for inspectors. This resulted in the complete reduction of calculation related errors, and considerably reduced engineering conformance evaluations by 25%.
- Developed asset protection device that prevented hand injuries and damage to critical parts.
- Managed and mastered the use of JD Edwards ERP system and performed troubleshooting, along with assisting machinists with minor NC code modifications.

## IRISNDT

### **Advanced Services Specialist**

**August 2012 – December 2016**

**Houston, Texas**

- Led inspection crews at major refineries across the greater United States with no lost time due to accidents.
- Inspection results consistently revealed critical damage mechanisms that would have resulted in loss of life, considerable financial loss, and operational disruptions.
- Completed training for non-destructive level 2 certifications in advanced ultrasonic flaw detection and thickness inspection, eddy current testing, penetrant testing, magnetic testing, material testing (metallic crystallographic interpretation), radiography, radiographic interpretation, and corrosion inspection.
- Lead advanced services technician at NASA Stennis Space Center in Mississippi and performed advanced ultrasonic testing on heavy wall nitrogen storage tank welds and base metal at the A-1 rocket propulsion test complex (Saturn V rocket test site).
- Certified in advanced ultrasonic testing methods, received API QUTE, analyzed AUT (automated Ultrasonic Testing) data from typical zero-degree inspections and tri-element inspections.
- For ExxonMobil BRIT (Baytown Reliability Inspection Team) team, used P&ID drawings to find piping for hand-drawn isometrics to create computer aided drafting documents using AutoCAD.
- Inspected the visible surface of the piping for damage mechanisms, such as corrosion, coating damage, and service-related defects and produced detailed reports for engineers.

## EDUCATION:

**Bachelor of Science, Mechanical Engineering | University of Houston | Graduated June 2020**

Team Lead for Senior Design Project, Team Ion – Corrosion Mitigation Device for oil and gas piping.

**Associate of Science, Focus in Inspection and Material Science | San Jacinto College | Graduated May 2012**

Dept. Intern – developed an equipment inventory control program and inspected Deepwater Horizon parts for BP.

**DigitalCrafts Software Development Certificate: Full Stack | American Intercontinental University - Chandler, AZ**

Final Project: Developed a SharePoint SPFx + React web part that enables employees to book, manage, and cancel event sessions with real-time slot tracking, scheduling validation, confirmation modals, and integration across multiple SharePoint lists.

## Relevant Coursework

C++, C#, VBA, Python, M language (power query), R language, SQL, CSS, HTML, Intro to full stack web development, Web Page Design and Layout, Intro to JavaScript, Creating Interactive Content with JavaScript, Databases and Data Driven Content, Full Stack Solutions, MathCAD, Matlab, Electrical Circuits, Finite element analysis, computational fluid dynamics, 2D and 3D CAD, statics, dynamics, thermodynamics, renewable energy concepts, team leadership, inspection techniques, AutoCAD, Solidworks, ANSYS, PTC CREO, STAR-CCM+, metallurgy, corrosion science, lean manufacturing concepts and quality control, industrial work measurements, automated systems control, manufacturing systems, Calc I II III, Differential Equations, Linear Algebra.

## REFERENCES:

Furnished upon request