Robert S. PE

DATA VISUALIZATION |PYTHON PROGRAMMING | DATA ANALYTICS| MECHANICAL ENGINEER

OVERVIEW

Mechanical Engineer with a BS from Texas Christian University and an IBM Python for Data Science and AI certification. Demonstrates expertise in predictive machine learning, Python-driven data analytics, and advanced statistical techniques. Proficient in modeling using Python and well-versed in tools like Bluebeam, Revit, Trane3D, Excel, and Tableau. Member of prestigious professional engineering societies and has contributed significantly in projects to clients such as Lockheed Martin, Houston Airport Systems, MD Anderson Hospital, Universal Studios, and Harris County.

CAREER ACHIEVEMENTS

Freelance Data Scientist **Dec 2023 – Present**

- Implemented predictive models using Machine Learning algorithms - Linear regression and ensemble algorithms and performed in-depth analysis on the structure of models
- Performed data extraction, manipulation, cleaning, analysis, modeling, and data mining using Python
- Processing, cleansing, and verifying the integrity of data used for analysis with Python
- Regularly generated Python based Data Models to transform data into useful information for the operations team
- Performed data analysis by gathering, analyzing, and deploying data from its pristine form to derive requirement projections and used Tableau to publish visualizations
- Expertise in advanced statistical and predictive modeling techniques to build, maintain, and improve on real-time decision systems
- Used Chi-squared advanced statistical techniques and dimensionality reduction techniques.
- Utilized Boosted Decision Tree, Linear and Bayesian Linear Regression Machine Learning models in Python

Mechanical Engineer **2018 – 2023**

- EXP Services, Orlando (Remote) (2023-2023): Led mechanical design for healthcare/entertainment/hospitality; expanded knowledge in Trane 3D loads and calculations
- Campos Engineering, Dallas (2022-2023): Mechanical engineer for mechanical projects; deepened expertise in Revit's 3D design and properties management.
- Johnston LLC, Houston (2018-2021): Managed diverse mechanical projects across sectors; comprehensive grasp of MEP work, including electrical/plumbing. Played pivotal roles in a small company setting, from design standardization to enhanced communication protocols.
- Axxis Building Systems Internship, Fort Worth (2017): Streamlined CAD files digital system; participated in on-site inspections.
- JACOBS Engineering Internship, Houston (2016): Contributed to large-scale MEP projects using Revit; honed analytical and organizational skills, leveraged the full potential of Revit's 3D design capabilities for quality and efficiency.

Core Competencies

- Predictive Machine Learning
- Python-based Data Extraction and Manipulation
- Advanced Data Cleaning and Verification
- Python Data Model Generation for Operations
- Proficient in Advanced Statistical Techniques

Programming and Tools

- Python, SQL, R
- Google Collab
- Visual Studio Code
- Tableau
- MS Office
- AutoCAD, Inventor, PSPICE
- Revit, Trane 3D
- Bluebeam

Education

- BS, Mechanical Engineering, Texas Christian University
- American Society of Professional Engineers (2023-present)
- Licensed Mechanical Professional Engineer (2022-present)
- American Society of Heating Refrigeration and Air conditioning Engineers Member (2018-2024)