Jonathan Stiefel

908-619-3033 | jstiefel5@outlook.com
Tampa, FL, USA
https://jonathanstiefel.github.io/
www.linkedin.com/in/jonathanstiefel

EDUCATION

B.S. Civil Engineering – Bucknell University 2019 - 2023

SKILLS

- Python (Pandas, NumPy, MatPlotLib)
- R
- SQL
- Tableau
- GitHub (version control)
- Excel
- MATLAB
- Data Cleaning and Preprocessing
- Google Colab
- 1762 Rapid peak rating (Chess.com)

PROJECTS https://jonathanstiefel.github.io/ ← my portfolio

CONCRETE CURING and the EFFECTS OF VIBRATION   Jan 2022

- Conducted in-depth statistical analysis on the effects of shock vibrations on curing concrete using **R Studio**.
- Created data visualizations (scatterplots, Q-Q plots, boxplots) and conducted **residual analysis**.
- Identified a linear relationship between shock vibrations and decreased structural integrity, providing critical insights for civil engineering.
- Developed and validated a **linear regression** model relating peak particle velocity (PPV) to ultrasonic pulse velocity ratio.
- Conducted hypothesis tests and calculated confidence intervals to compare cracked vs. non-cracked concrete.

CUSTOMER SALES ANALYSIS   Feb 2023

- Utilized **SQL** to extract analyze data from SOMETHING FROM that python for business analytics class using **MatPlotLib**

The covid 19 data project from statistics class

MACHINE LEARNING DRAWING RECOGNITION

- Developed an interactive web application utilizing **Convolutional Neural Networks (CNNs)** to accurately identify and classify user-drawn sketches in real-time.
- Implemented using **Python** with **TensorFlow**/Keras, the model was trained on the MNIST dataset for digit recognition.
- The application features a user-friendly interface built with HTML5 Canvas and JavaScript, enabling seamless drawing input and instant feedback on predictions. This project demonstrates proficiency in deep learning, image processing, and full-stack development.

EXPERIENCE

ROADWAY ENGINEER - Element Engineering Group   Summer 2023 - Present

- Utilize MicroStation (OpenRoads) to prepare roadway plans, typical sections, quantities, TTCP, and submittals following QC/QA process.

- Reference **FDOT design standards** and Basis of Estimates (BOE) to prepare plans

STRUCTURAL ENGINEER - General Dynamics, Electric Boat   Summer 2022

- Write instructions for the sub-contractors to perform repairs and updates to the U.S. Navy's **nuclear submarines**. Specifically repairs to pressure hull and non-pressure hull structural systems (i.e. torpedo tubes, ballast tanks, etc)

PROJECT ENGINEER - The Whiting-Turner Contracting Co   Summer 2020

- Work with the project team to assist in preparing structural design and drawings for buildings (commercial, institutional, residential) from conceptual and preliminary stages of design through to completion
- Perform field review for projects under construction
- Administered workplace health and safety regulations, rules, and guidelines

FIELD ENGINEER – Geo-Technology Associates   Summer 2021

- Performed proctor tests, concrete breaks, nuclear gage tests with soil and asphalt, and wrote daily field reports (DFRs)
- Traveled to dozens of construction sites around NJ to gain a vast understanding of various geotechnical situations

SOLID MECHANICS II TUTOR/GRADER – Bucknell University   Fall 2021

CERTIFICATIONS

Google Data Analytics Certification *in progress*

Engineer in Training Certification (EIT)

Maintenance of Traffic Certification (MOT)