Duy Nguyen

U.S. Citizen

Currently hold the final secret clearance (inactive since 07/2022). Programmer and Data Analyst with 4 years of experience in developing web applications and data analysis. Proficient in Python, SQL, R, and MATLAB. Intermediate level of AWS, Docker, MS PowerBI. Strong mathematical modeling and analytical skills with a Master in Computational and Applied Mathematics.

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WORK EXPERIENCE

Programmer/Statistician

Southern California Water Research Agency

07/2019 - Present *3535 Harbor Blvd., Suite 110, Costa Mesa, CA 92626*

Full-time

Achievements/Tasks

- Develop and maintain website applications on AWS to automate the process of performing quality control on the metadata and lab data submitted by the research and development agencies.
- Develop and manage SCCWRP's internal databases. Automate the process of pulling and syncing the data from multiple database's sources (MS Access, PostgreSQL, ArcGIS, etc. using APIs.
- Interpret raw data by making data visualization based on statistical analysis
- Work with the SCCWRP's scientists to develop reports and analyses to improve the management of aquatic systems in Southern California and beyond.
- Develop dashboards using R-Shiny/ Flask app to share insights with the clients and researchers from Southern California's wastewater treatment agencies, storm-water management agencies and water-quality regulatory agencies.

Contact : Paul Smith - pauls@sccwrp.org

Mathematician/ Data Scientist

Naval Air Weapons Station China Lake
Department of the Navy

02/2022 - 07/2022 *China Lake, CA*

Full-time

Achievements/Tasks

- Research and develop technologies to deliver advanced, integrated air warfare capabilities to ensure mission success for the Navy and Marine Corps team.
- Separated due to work location being far away from family

EDUCATION

Master of Science: Applied Mathematics

California State University, Fullerton

08/2019 - 01/2021 *GPA: 3.94/4.0*

Bachelor of Arts: Applied Mathematics

California State University, Fullerton

08/2016 - 05/2019 *GPA: 3.68/4.0*

COMPUTER SKILLS

Programming: Python (Pandas, Numpy, Scipy, Matplotlib, Scikit-learn), R, R-Shiny, MATLAB, SQL

Databases: PostgreSQL/pgAdmin, MongoDB, Extract-Load-Transform (ETL), Automation

Web development: HTML, CSS, JavaScript, Flask Framework

Visualization: Qlik/Dash Plotly, ArcGIS API for JavaScript

Version Control: Git/GitHub

Cloud Computing/Application Development: AWS/Docker

PROJECTS

Terrain Coverage Analysis Tool (NASA/JPL) (01/2020 - 05/2021)

- Led a team of graduate students to model, analyze and visualize the lunar terrain.
- Generated the regional dynamic simulation of the Sun illumination, Earth communication coverage, Lunar Relay Satellite communication.
- Visualized the terrain from a lunar asset including the Line-of-Sight communication, Sun Illumination, and Earth Visibility.
- Developed the Terrain Coverage Analysis Tool (TCAT) to incorporate all mathematical models and delivered it to NASA/JPL.

Monitoring the effects of BMPs (Best Management Practices) across the U.S. (SCCWRP) (01/2020 - Present)

- Manage project tasks to develop a data analysis and management system with Python and Docker in order to collect the data from the environmental sensors recording the water's level, temperature, and other factors of the soil during dry and wet weather.
- Work with the U.S. Environmental Protection Agency (EPA) scientists and engineers to automate the process of checking the data flags in the raw data (indicating sensor's malfunction) and performing the statistical analysis on the raw data.
- Automate the process of storing the analyzed data in the cloud's database and sending reports to EPA.
- Develop a R-Shiny application to provide interactive dashboard for data visualization.