Duy Nguyen

Security Clearance: Secret

AWS Certified Developer with 5 years of professional experience in software development and data engineering. Strong mathematical modeling and data analysis. Obtained a Master's degree in Computational and Applied Math and currently pursuing a Master's degree in Software Engineering.

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 github.com/duynguyen2019

WORK EXPERIENCE

Programmer (Full-time)
Southern California Coastal Water Research Authority

07/2019 - Present   *Costa Mesa, CA*

Achievements/Tasks

- Develop and maintain website applications to streamline the quality control data submission process for partner agencies. Design, build, and maintain the organization's data management system (cloud databases, servers, etc.)
- Collaborate with the scientists to apply statistical techniques to derive insight from environmental data.
- Develop interactive dashboards/data tools/web apps to share insights with managers, clients and researchers from Southern California's wastewater treatment, storm-water management, and water-quality regulatory agencies.
- Supervise student interns in the execution of technical tasks to support project objectives.
- Create training datasets, train models and develop AI iterative process for computer vision using YOLO object detection algorithm.
- Develop custom chatbots by fine-tuning Large Language Model for stakeholders to interact with data.

Mathematician (Full-time)
Naval Air Weapons Station China Lake Department of the Navy

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

Achievements/Tasks

- Due to Non-disclosure agreement, I am unable to provide specific details about my duties. In general terms, I contributed to research and development efforts related to weapons and communication devices for the Department of the Navy.

PUBLICATIONS AND CERTIFICATIONS

Work-related journals and technical reports that I co-authored are available on my website.
https://www.duyanguyen.com/#publications

AWS Certified Developer
https://www.credly.com/badges/ae7ce3bc-8d0a-4be8-87d3-8d0941cb7064/public_url

08/2023 - 08/2026

TECHNICAL SKILLS

Programming: Python (Pandas, Numpy, Scipy, Matplotlib, Scikit-learn), R, MATLAB, SQL, HTML, CSS, JavaScript (React.js, D3.js, Chart.js)

Web Development: Shiny, Flask, AWS, Docker, ArcGIS SDK, AWS SDK, OpenAI API

Databases: PostgreSQL, NoSQL, MongoDB, Extract-Load-Transform (ETL), Microsoft SQL Server

Version Control: Git/GitHub

EDUCATION

Master of Science: Software Engineering (GPA 4.0) (08/2023 - 05/2025)
California State University, Fullerton

Master of Science: Applied Mathematics (GPA 3.94) (08/2019 - 01/2021)
California State University, Fullerton

Bachelor of Science: Applied Mathematics (GPA 3.60) (08/2016 - 08/2019)
California State University, Fullerton

WORK PROJECTS

Illicit Discharge Detection and Elimination Program (partnering with Orange County Public Work) (05/2024 - Present)
- Real-time monitoring approach that has the potential to improve managers' ability to detect illegal dumping activities

California Estuarine Marine Protected Area Monitoring Program (07/2019 - Present)
- The California Estuarine Marine Protected Area Monitoring Program is an ongoing effort to assess the quality and condition of estuaries statewide.

Southern California Stormwater Monitoring Coalition Program (07/2019 - Present)
- The Southern California Stormwater Monitoring Coalition is a regional partnership of 16 stormwater management agencies working to develop solutions to regional challenges in stormwater management.