Quoc Anthony Doan

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Skills and Qualifications

Python, SQL, R, Javascript, PHP, Elixir, Vietnamese, Time Series Analysis, Statistic Models, Machine Learning, Random Forests, Decision Trees, Bayesian models, Natural Language Processing, Regression Analaysis, Linear models, Data Visualization, Web Development, GIS technology, QGIS, Dashboard Design, Linux, PostgreSQL, MySQL, SQL Server, T-SQL, Database design, Scrapy, Data management, Statistic Inference, Frequentist, Debian, VIM, Tmux

Education

California State University, Long Beach	Master of Science in Applied Statistics GPA: 3.727 Cum Laude
University of California, Riverside	Bachelor of Science in Computer Science

Employment History (4 years of Data Science & over 10 years of full stack web development)

U.S. Department of Veterans Affairs (GLA) | Statistician

Jan 2020 - Sept 2023

Supported over 20 research teams by producing descriptive statistics, exploratory data analysis, machine learning models, and statistical models to evaluate VA healthcare programs. Designed cohort, training, and testing datasets using R, Python, Stata, SAS, and SQL. Applied NLP techniques to extract and analyze time durations from unstructured text in field reports. Developed secure visualizations and dashboards in R, SQL Server, and PowerBI, aligning with HIPAA compliance to assess program effectiveness.

NASA - Jet Propulsion Laboratory (JPL) | Data Scientist

Summer 2018

Developed an internal tool using the **Python Flask web framework** and the **Vue.js JavaScript** framework to efficiently identify employees with specialized skills across the organization, facilitating project collaboration and optimizing resource allocation. Summer Internship.

Food & Drug Administration, National Center Toxicological Research | Statistician

Summer 2017

Developed a **predictive tool** in **R** using a **non-parametric Bayesian hierarchical model** to assess druginduced liver injuries (DILI) in new and existing drugs. This **model** analyzes chemical profiles to **forecast** potential liver toxicity risks, addressing the gap in post-trial side effect monitoring for drugs that have passed FDA **clinical trials**. Summer Internship.

Startup/Free Lance | Fullstack Web Developer

2013 - 2016

- At Zipfworks redesigned the Bluepromocode website using Ember.js and Bootstrap 3. Developed a web crawler using Python's Scrapy framework to collect data for Stylespotter. Built RESTful services in Scala using SprayIO API framework for both Stylespotter and ZipDesk, enhancing data access and system integration.
- At WhoYouAre created, maintained, and enhanced features for an existing PHP web app, and implemented a mailing list. Developed a product web app using PHP Laravel for Le Snob, conducted technology reviews to identify frameworks for scaling mass notifications, and led technology adoption and implementation strategies.

University of California, Riverside Extension | Program Analyst II

Jan 2011 - May 2013

Led **project management** and **software development** across multiple initiatives, overseeing two teams on various projects and bug fixes. Used **OracleDB**, **PHP Zend framework**, and **jQuery** to develop tools that enhanced the **content management system**, including a cost estimation application for international programs, resulting in a **27% increase** in international student applications. Built **SQL**-based backend structures to improve operational efficiency and user engagement.

Publications

Nicholas Keisuke Brownell, Evan Shannon, **Quoc Doan**, Gregg C. Fonarow, and Boback Ziaeian (2023 Mar, 81). *Healthcare Utilization for US Veterans with Heart Failure during the Covid19 Pandemic* (Vol. 31 No. 8). J Am Coll Cardiol. 2023 Mar, 81 (8 Supplement) 536.

(https://www.jacc.org/doi/full/10.1016/S0735-1097%2823%2900980-4)

Continuous Education (part time)

Foothill College	Los Altos Hills, CA
Geographic Information Systems Technology	2024 - present
Certificate	