Quoc Nguyen

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Personal Website • LinkedIn • Leetcode • Github

EDUCATION

University of Houston, Houston, Texas

Doctor Of Philosophy In Applied Mathematics

Aug 2023- Present

• Specialized in Machine Learning, Statistics and Computational Mathematics

University of Houston, Houston, Texas

Bachelor Of Science In Mathematics with minor in Economic

Cumulative GPA: 3.8

Dec 2018- Dec 2023

PERSONAL PROJECTS

- **Predict Financial Crisis**: Training on past data and testing current data to classified trend to financial crash. Tool: MATLAB
- **IBM Quantum Computing Challenge**: Complete the IBM quantum challenge by create simulation of chemical reaction on IBM quantum computing platform. Tool: Python, IBM facility
- Modeling Pandemic Growth: Modified SIR model to simulate the grow of COVID. Tool: Python
- Customer Behavior Analysis: Performed Predictive analytic on behavior of customer behavior using data from Kaggle for better strategy of service customer. Tool: R, data from Kaggle

EXPERIENCE

University Of Houston, Houston, Texas

Dec 2019 – Present

Teaching Assistant

• Lecturing, mentoring and grading mathematics at the university

Sen Laboratory, Houston, Texas

Sep 2021 – Mar 2022

Data Analyst

- Create a statistical model to help finding pattern in data of protein conformational angle
- Determined an unknown protein structure from an X-ray crystallography electron density map using a mathematical model (Quantum Mechanic). Resulting a publication in national library of medicine on conformation analysis.

Baylor College Of Medicine, Houston, Texas

Apr 2022 – Oct 2022

Undergraduate Researcher (Computational Neuroscience)

- Creating Metric measures the effectiveness of clustering networks that perform better than betweenness centrality for partial membership of nodes in a network. Finding a way to reverse unlabeled network to a stochastic block model.
- Apply the metric measure to study the brain structure of a fruit fly.

HONORS AND AWARDS

Dean's List: 2018-2022, Academic Excellence Scholarship, Blanche B. Grover Scholar Awards, Presidential Fellowship, The Graduate Tuition Fellowship, Summer Undergraduate Research Fellowship.

ACTIVITIES

Putnam Competition Club, Mathematical Modeling Club, Hackathon Club.

SKILLS

- Fluent in Vietnamese
- Programing Language (Over 5000 lines): Python, R
- Programing Language (Over 1000 lines): C++, Matlab, SOL, Latex, Linux Shell
- Other application: Excel, Tableau, Power BI

CERTIFICATES

Data Visualization With Paraview And Tableau, Machine Learning, Essential Of SQL, Machine Learning With Python, Principle Of Data Management, Scientific Computing With Python.