## **OUOC-HUY NGUYEN**

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#### **EDUCATION**

## University of Michigan, Ann Arbor

Master of Applied Data Science

May 2022 - Aug 2023

3.9 GPA

# University of California, Irvine

Bachelor of Science in Mathematics - Data Science Specialization, Statistics Minor

Sep 2017 - Jun 2021 Summa Cum Laude, 3.9 GPA

## **EXPERIENCE**

Upwork | California

May 2022 - Present

Data Scientist (Freelancer)

- Wrote Python using TensorFlow to evaluate an overfitting convolutional neural network (CNN) for a client researching medical imaging in healthcare.
- Coded in Python using GeoPandas to provide analytical insights and geographic visualizations on malicious hacking attempts.
- Wrote SQL queries to analyze customer billing transactions and presented insights and code to a stakeholder.
- Provided consulting on best Python programming practices with a focus on object-oriented methodologies.

# Curacao | Los Angeles, California

Sep 2021 - Apr 2022

Data Analyst

- Engineered a data pipeline for our mobile application product, enabling the extraction, transformation, and loading (ETL) of 16+ GB of Open Banking data from FinTech APIs to underwrite personal loans.
- Designed and developed a scikit-learn random forest classification model that predicts loan payment with more than 70% accuracy.
- Analyzed business data to inform and recommend our marketing strategy across the Customer Lifecycle.
- Optimized routine reports in SAS and Excel that resulted in saving about 10% of time spent.
- Acquired proficiency in SQL and SAS within 2 months, leveraging these tools to execute data analytic tasks.

## ACADEMIC DATA SCIENCE PROJECTS

# Youtube NLP Recommender

June 2023 - Present

- <u>Developed</u> an end-to-end solution that integrated with the Youtube API and a website for real-time content viewing and filtering with Natural Language Processing (NLP) techniques.
- Configured an AWS RDS PostgreSQL database for user preferences that integrated with the Streamlit web app.

#### **NHL Draft Predictions**

- Created a machine learning model to predict NHL draft positions for prospective hockey players and cluster players together into groups based on the nearest neighbor algorithm.
- Harnessed the cutting-edge power of Language Models (LLMs) including Google's BERT and OpenAI's Chat-GPT to encode word embeddings as model features.

# RESEARCH

# Atwood Lab | Irvine, California

Aug 2019 - Mar 2021

Undergraduate Researcher

- Implemented a Pytorch graph-based convolutional neural network (CNN) for semi-supervised classification model from a highly cited research article for identifying cancerous cells.
- Researched skin cancer single-cell data using methods for principal graphs and graph neural networks.

# MathBioU & Math EXPLR | Irvine, California

Jul 2019 - Aug 2019

Undergraduate Researcher

- Performed computational biology research at a 6-week summer research program.
- Collaborated as a co-author in a research report to present findings to a diverse >15 person audience.

Programming: Python (4 years), SQL (2 years), PostgreSQL, R, SAS, C++, Matlab, Bash, Shell, Unix/Linux Terminal Libraries: Numpy, Pandas, Scikit-learn, PyTorch, TensorFlow, Hugging Face, PySpark, Statsmodels, NLTK, Matplotlib, Seaborn, Altair, Geopandas, Psycopg2, Streamlit

Datasets: Customer, Financial, B2B, Healthcare/Clinical, Geospatial, Causal Inference, JSON, Experiments, Web Scraping Tools: Version Control (Git, Github, DVC), Jupyter Notebook, Business Intelligence (Power BI, Domo), Microsoft Excel, Cloud Infrastructure (AWS S3/EC2/RDS), DBeaver, RStudio, LaTeX