

# CHAU NGUYEN

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Master of Science in Data Science for Public Policy candidate with proven research experience utilizing both qualitative and quantitative data. Proficient programmer with experience in refactoring codes between languages, identifying gaps in existing codebase and making actionable recommendations to help scale future product development. Able to work in collaboration with and communicate complex technical concepts to wide-range of audience including think-tanks, tech start-up, international organizations, and foreign government officials.

## EDUCATION

### Georgetown University | McCourt School of Public Policy

Washington, DC

Master of Science in Data Science for Public Policy

August 2020 - Expected graduation: May 2022

- Relevant coursework and tools used: **In Python:** Applied Statistical Learning, Advanced Modeling Techniques (pandas, sklearn, requests, beautifulsoup), Neural Nets and Deep Learning (TensorFlow, keras, PyTorch, NumPy) | **In R:** Accelerated Statistics for Public Policy I (base R, ggplot2) and II (tidyverse, dplyr) | Data Visualization (Tableau, R, Python), Data Ethics, Communication for Data Science, Public Policy Process.

### University of California, Berkeley

Berkeley, CA

Bachelor of Arts in Economics

Graduation date: May 2016

## TECHNICAL SKILLS

- **Data wrangling & analysis:** Python (preferred), R, Stata.
- **Data visualization:** Python: matplotlib, plotnine, seaborn | R: ggplot2, gnuplot | Tableau.
- **Project management & collaboration:** Familiar with Agile development practices, Github workflow, and Jira.
- **Other:** Comfortable with  $\text{\LaTeX}$ , Ubuntu environment and Linux command line, geospatial data, and ArcGIS.

## EXPERIENCE

### General Services Administration, Office of Evaluation Sciences

September 2021 – present

#### Graduate Research Assistant (MDI Scholar)

- On loan from Georgetown's Massive Data Institute to contribute in joint GSA - US Treasury projects analyzing emerging data coming from COVID-19 stimulus packages from the American Rescue Plan Act.

#### Fraym

June 2021 – September 2021

#### Data Science Intern

- Developed process to systematically match over 3,000 spatial interpolation jobs from internal SQL databases with unique AWS logStreams, query logs from AWS CloudWatch, and download logs for over 600 failed jobs.
- Identified reasons for job failures after applying clustering algorithms on error logs, pinpointed steps in the interpolation process where jobs can error out, and implemented tryCatch exceptions to prevent future failures.
- Delivered presentation of actionable insights for further improvements of the product in front of whole company.
- Generated Jupyter Notebook explaining conceptual intuitions behind two unsupervised density-based clustering algorithms and presented twelve example scenarios to illustrate parameter tuning options to Data Science team.
- Utilized SQLAlchemy and GeoAlchemy2 to convert PostGIS functions that manipulate geometries in existing R scripts into Python code for compatibility with fastAPI schema used in creating two API endpoints.
- Led Data Science study group on how to use boto3 to query and download AWS CloudWatch Logs.

#### International Monetary Fund

December 2016 – August 2020

#### Research Analyst — Macro-Financial Division, Research Department

June 2019 – August 2020

- Used SQL to query and Stata to clean and compile firm-level data of over 275,000 firms in 75 countries while managing and updating the Corporate Vulnerability Utility database.
- Identified and addressed bugs causing CVU Stata scripts to crash, created detailed documentation of the process.

#### Research Analyst — Small States Division, Asian & Pacific Department

December 2016 – June 2019

- Managed internal macroeconomic databases of four countries to ensure data consistency across all economic sectors for each. Provided similar back-up support for four other countries.
- Designed three surveys to collect inputs from authorities of 16 countries and four development partners to support five high-level, multilateral conferences in the Pacific region.
- Created eight Tableau dashboards to illustrate the characteristics of more than 70 recipient countries of China's outward direct investments to help facilitate internal discussions on China's Belt and Road Initiative.
- Contributed more than 200 descriptive charts and 60 tables in over 10 official IMF publications.