# Nam Nguyen

♥ Milwaukee, Wisconsin 📞 +1 414 207 7507 🖼 nam.nguyen.thn@gmail.com in namnguyen7 🕡 namnguyen-hub

# **Professional Profile**

I am an experienced data scientist and economist with a strong background in statistical data analysis, econometrics, machine learning, time series, quantitative analysis, stochastic processes, and data visualization. Additionally, I am a proven proficient communicator with strong presentation skills and the ability to nurture productive relationships with colleagues at all levels. I am looking for an internship position in quantitative and analytics field, and currently available to work under STEM OPT.

#### **Education**

2022	<b>Ph.D. Quantitative Economics and Econometrics</b> Milwaukee, Wisconsin, US	University of Wisconsin - Milwaukee
2016	M.A. Economics Chicago, Illinois, US	University of Illinois at Chicago
2013	<b>B.A. Economics and Business Administration</b> Cedar Rapids, Iowa, US	Coe College

## Research

- 1. Nguyen, N. (2022). "Identifying Unsustainable Credit Gap" [PhD thesis]. University of Wisconsin Milwaukee
  - I utilized model averaging methods to overcome model uncertainty problems when using credit to GDP ratio gaps to predict future systemic financial crises in a discrete binary outcome setting. The panel data consists of 40 countries
- 2. Kishor, K., & Nguyen, N. (2022). "Measuring Credit Gap" [PhD thesis]. University of Wisconsin Milwaukee
  - We set up a horse race for forecasting models and implemented forecast combination of multiple credit gap measurements to improve predictive performance on future total credit changes.
- 3. Nguyen, N. (2021). "House Prices and Credit Cycles" [PhD thesis]. University of Wisconsin Milwaukee
  - I estimated a causal state-space model to examine the dynamic relationship between housing prices (asset prices) and household credit time series data both in the long-run and short-run.

#### **Data Science Skills**

#### **Programming Languages:**

- Python (numpy, scikit-learn, pandas, matplotlib, seaborn, tensorflow)
   SQL Matlab C++ Stata SAS Tableau
- R (dplyr, zoo, caret, vars, plm, xts, forecast, knitr, reshape2, janitor, pROC)

**Statistics:** machine learning • neural network • Bayesian inference • quantitative methods • panel data analysis • time series models • cross-validation • uncertainty quantification • forecasting models

**Software Development:** source control (Git)

Numerical Methods: optimization (stochastic, multi-start) • differential equations

Communication: presentations • data analysis reports (Rmarkdown, Jupyter) • data visualization (ggplot2)

# **Experience**

Sep 2017 - Aug 2022 PhD Candidate & Instructor

University of Wisconsin - Milwaukee

Milwaukee, Wisconsin, US

- Taught a diverse set of students with a wide range of technical backgrounds
- Clearly communicated statistics and economic theory, with the express purpose of applying it to analyze real data

## Jan 2017 - Aug 2017 Research Assistant

Washington, D.C, US

America Institutes for Research

• Designed and quality controlled standardized tests for public grade school students

# Sep 2014 - May 2016 Graduate Teaching Assistant

University of Illinois at Chicago

Chicago, Illinois, US

Assisted teaching undergraduate students in introductory and intermediate economics courses

## Dec 2013 - Jun 2014 Life Insurance Underwriting Assistant

Transamerica

Cedar Rapids, Iowa, US

 Reviewed and audited applications, correspondences, reports and legal documents to comply with business processing rules

# Sep 2011 - Dec 2011 International Trade Analyst - Intern

Illinois SBDC International Trade Center at ICNC

Chicago, Illinois, US

- Conducted research in foreign markets to provide information and services to help small businesses export
- Organized events and seminars to promote export, hosting up to 70 business representatives

## Jan 2011 - May 2013 Student Manager

Sodexo

Cedar Rapids, Iowa, US

- Directly supervised and evaluated 10 workers serving food to more than 500 customers daily
- Delegated tasks, resolved problems and made decisions when necessary. Trained and guided new employees

# **Certificates**

**SQL** - HackerRank

Machine Learning with Python - Kaggle

# **Selected Course Projects**

- Logistic regression, random forest, feature selection, cross validation, parameter tuning and prediction on big datasets
- Implemented recurrent neural network with Keras Data structures & algorithms in Python

# **Memberships**

American Economic Association
Midwest Economic Association
National Association for Business Economics

#### **Awards and Honors**

2019-2021	<b>Chancellor's Graduate Student Award in Economics</b> University of Wisconsin - Milwaukee
2018-2022	<b>Graduate Teaching Assistantship</b> University of Wisconsin - Milwaukee
2014-2016	<b>Graduate Teaching Assistantship</b> University of Illinois at Chicago
2011, 2013	Dean's List Coe College

# References

Provided upon request

Doctorate Research Scholar
Department of Economics
University of Wisconsin-Milwaukee
+1 (414) 207-7507
nam.nguyen.thn@gmail.com

November 17, 2022

Dear Mr. Santosh,

Thank you again for the opportunity to talk to you regarding the jobs in your Quants & Analytics team back in February. Heeding your advice, I have improved my Python skills through coursework and applications in my dissertation project data. I would welcome the opportunity to speak with you again regarding the "Quants & Analytics" internship position at KeyBank.

My immediate goal is to obtain experience in the field and to learn more about the work environment in the financial industry. And my longer-term goal is to apply for a full-time position at KeyBank. I am confident that my skills and work ethic will make me a valuable asset to your team.

Regarding Python skills preparation, I have completed an intermediate-level certificate in Machine Learning using Python provided by Kaggle. Secondly, I updated my Python code repository to reflect the new chapters in 'An Introduction to Statistical Learning' by James et al. (2021) which includes Deep Learning and Neural Networks. Thirdly, I have practiced my data structures and algorithms skills by solving problems on LeetCode and HackerRank. Lastly, using my dissertation data, I applied Tree-based methods such as regression decision trees and Random Forests in Python to better visualize the decision process of labeling periods leading to financial crises.

I am sharing my resume for more information about my expertise and research publications here. My experience as an economist includes more than five years of experience working with coding, cleaning data, and literature reviews. All my records in academia and industry show my solid background in my field of study, theoretical and statistical aspects.

My field of research is in macroeconomics, applied econometrics, credit analysis and early warning system of financial crises. I obtained my Ph.D. in Economics from the University of Wisconsin - Milwaukee (UWM) in September 2022 with a dissertation on "Measuring Credit and Property Prices Gaps". In addition, I have earned a Master's in University of Illinois at Chicago in economics. And I did my Bachelor in Coe College, Iowa in economics and business administration with a minor in Mathematics. Currently, I have attained the STEM OPT work authorization, and I am available to work in the US.

I have demonstrated the perseverance, commitment, and ambition necessary to succeed in a highly competitive environment throughout my education. I hope that my resume can convince you that I am a suitable candidate for a position in the financial quantitative and analytics field. I would be grateful if you could spare the time on my documents. If you want additional information not included in my resume, please contact me at my phone number or email address above.

Thank you in advance, and I am looking forward to hearing from you.

Sincerely,

Nam Nguyen