MINH H. PHAM

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QUALIFICATION SUMMARY

- 3 years of working experience in programming and databases with expertise in R, Python, and SQL
- Experience with statistical research with 2 completed publications and 4 under review

WORKING EXPERIENCE

Research Associate, Center for Urban Transportation Research – Tampa, FL 5/2018 – Present

- Archive GIS and GTFS Realtime data using Python and MongoDB on Linux cloud computing
- Predict arrival time with machine learning

Research Associate, USF Department of Pharmaceutical Science – Tampa, FL 5/2018 – Present

- Analyze bio-chemical and pharmaceutical data

Graduate Assistant, Statistics Coordinator - USF Academic Success Center – Tampa, FL 12/ 2016 – 5/2018

- Setup and maintained the department's database from unstructured and diverse data sources
- Maintained and improved the department's automatic programs using Python

Research Assistant - Center for Urban Transportation Research – Tampa, FL 8/2017 – 9/2017

- Analyzed survey data using Clustering Analysis, Discriminant Analysis, and dimensionality reduction techniques.

Actuarial Intern – Group, Voluntary & Worksite Benefit
Metlife – Bridgewater, NJ 5/2016 – 12/2016

- Projected cash and values of business with statistical models
- Automated a project using SQL, reduced calculation time from hours to 5 minutes
- Modeled sales opportunities in the market by analyzing big databases

Actuarial Intern - Market Risk & Derivative Strategies
Metlife – Morristown, NJ 5/2015 – 8/2015

- Used statistical models to simulate the financial market to test the corporation's endurance against global shocks
- Main developer of a new automatic program using R and SQL
- Documented the automatic process for cross-departmental use

Peer Leader
USF Mathematics & Statistics Department – Tampa, FL 8/2013 – 5/2016

Tutor
Academic Success Center – Tampa, FL 1/2014 – 5/2016

PUBLICATIONS

Journal Articles

Pham, M. H., Tsokos, C. P., Choi, B. (2018). Maximum Likelihood Estimation for the Generalized Pareto Distribution and Goodness-Of-Fit Test with Censored Data. *Journal of Modern Applied Statistical Methods*, 17(2).

Pham, M. H., & Kafle, R. C. (2016). Competing Risks Analysis of African American Breast Cancer Patients. *Advances in Breast Cancer Research*, *6*(01), 28.

Thesis

Pham, M. H., Cheng, F., Ramachandran, K. M. (2018). Signal Detection of Adverse Drug Reaction using the Adverse Event Reporting System: Literature Review and Novel Methods.

Pham, M. H. (2014) "Survival Analysis - Breast Cancer," Undergraduate Journal of Mathematical Modeling: One + Two: Vol. 6: Iss. 1, Article 4. DOI: http://dx.doi.org/10.5038/2326-3652.6.1.4860.

Under Review

Lester, A., **Pham, M. H**., Winters, P. L. The United States SEGMENT for Energy Efficient Transport.

Hao Y., Yan J., Rein H., **Pham M.,** Fang Y., Feng Y., Song X., Yan H., Wang Y., Cheng F. Parameters of Pulse Wave for Monitoring Type 2 Diabetes and its Combination with Hypertension and Hyperlipidemia.

Hao Y., Yan J., **Pham M.,** Rohlsen D., Yuan X., Qian P., Feng C., Wang Y. Metabolomics study of tongue coating samples from dampness syndrome patients of coronary heart disease and chronic renal failure.

Pham, M. H., Cheng, F., Ramachandran, K. M., A Comparison Study on Algorithms to Detect Drug-Adverse Event Associations: Frequentist, Bayesian, and Machine Learning Approaches.

SOFTWARES

Schedule Algorithm using Monte Carlo Simulation – Java software

- Developed an algorithm to set schedules for many tutors into multiple subject centers using Monte Carlo simulation
- Collaborated with IT to create a Graphical User Interface for administrators' use
- The algorithm finishes the scheduling process in 5 minutes, which previously took five people weeks to complete

Estimate Your Chance of Credit Approval

- Created an application that is hosted on Shinyapps to utilize data collected on Reddit to estimate the probability of getting approved for most credit cards using statistical learning methods (Logistic Regression, KNN, Neural Networks)
- The application was written in R and is available publicly at https://minhhpham.github.io/credit-cards
- The application was posted on the same sub-Reddit with 100,000 subscribers and received positive feedbacks

Markov Chain Monte Carlo Illustration

- https://minhhpham.github.io/mcmc

COMPUTER SKILLS

Operating System

- Ubuntu Linux

Programming

- R: performed most projects and research with R including a major automation project at MetLife, an online application, and a published algorithm
- Python, VBA, SQL: use daily at current work
- Java: used to compile the program Schedule Algorithm using Monte Carlo Simulation
- SAS: used in the first research publication

Databases Management

- IBM Netezza, SQL Server, MS Access, MongoDB

Cloud Computing

- Amazon Web Service, DigitalOcean

CONFERENCE PRESENTATIONS

- **Frontiers of Statistics, Tampa, Florida** 5/2018
  Title: "Literature Review and Novel Methods in Drug - Adverse Event Association Study"
- **2018 Fall Technical Conference - Statistics & Quality: Riding the Big Data Wave, West Palm Beach, Florida** 10/2018
  Title: "Applying Monte Carlo Logic Regression to the Drug - Adverse Event Association Study"

EDUCATION

University of South Florida, Tampa, FL 5/2018

- Master of Arts in Statistics (GPA 3.97)

University of South Florida, Tampa, FL 5/2016

- Bachelor of Arts in Statistics (GPA 3.97, USF Dean's List, Honor College, and Summa Cum Laude)

AWARDS & CREDENTIALS

- Southeastern Actuaries Conference (SEAC) Scholarship 8/2017
- Scholarship, Network-centric Stochastic Hybrid Dynamic Time-event Process Modeling 5/2016
- USF Dean's List, Graduation with Honor and Summa Cum Laude
- Actuarial Exams: P (6/2013), FM(7/2014), C & MFE (7/2016, passed both in the same week!)

LEADERSHIPS & ACTIVITIES

- **President**, Actuarial Society at USF 12/2014 – 5/2016
- **SQL & Python Teacher**, Actuarial Society at USF 1/2017 – Present
- **Research Judge,** USF 2018 Graduate Research Symposium 2018
- **Bronze Medal,** Florida State Closed Tournament, Central Florida Table Tennis 2014
- **Intramural Champion**, USF Intramural 2015 and 2017 2015, 2017
- **2nd place Northern Florida Division**, National Collegiate Table Tennis 2016