Quan Nguyen

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Education

2019 - present **Ph.D. in Computer Science**
Washington University in St. Louis, St. Louis, MO

Research interests: machine learning, active learning, Bayesian optimization, active search

Advisor: Prof. Roman Garnett

2015 - 2019 **B.A. in Computer Science and Mathematics**
DePauw University, Greencastle, IN

summa cum laude with highest honors
Minor degree in Philosophy

Advisors: Profs. Khadija Stewart, Zhixin Wu, and Ashley Puzzo

Work Experiences

Aug 2019 - present **Graduate Research Assistant** Washinton University in St. Louis, MO
McKelvey School of Engineering

Our research focuses on Bayesian machine learning and experimental design to accelerate discovery in e.g. drug and materials science. Our work was presented at **ICML** and **AAAI**.

Aug 2017 - May 2019 **Research Assistant** DePauw University, Greencastle, IN
Computer Science Department

We researched ensemble models in machine learning. Our work was presented at **MCURCSM** 2017. Our solution finished in 15th place (2.5%) of Kaggle's DonorsChoose competition.

May 2018 - Sep 2018 **Data Analysis Engineer Intern** Micron Technology, Inc., Boise, ID
R&D Department

We designed a human-in-the-loop pipeline to detect defects and identify causes using statistical methods. Our findings helped improve interpretability in the larger workflow.

Academic Publications

Fatemah Mukadum, **Quan Nguyen**, Daniel Adrion, Gabriel Appleby, Rui Chen, Haley Dang, Remco Chang, Roman Garnett, Steven Lopez. Efficient discovery of visible light-activated azoarene photoswitches with long half-lives using active search. *ChemRxiv preprint*, 2021.

Quan Nguyen, Arghavan Modiri, and Roman Garnett. Nonmyopic Multifidelity Active Search. *International Conference on Machine Learning (**ICML**)*, 2021.

Quan Nguyen, Sanmay Das, and Roman Garnett. Scarce Societal Resource Allocation and the Price of (Local) Justice. *AAAI Conference on Artificial Intelligence (**AAAI**)*, 2021.

Shayan Monadjemi, **Quan Nguyen**, Henry Chai, Roman Garnett, and Alvitta Ottley. Active Visual Analytics: Assisted Data Discovery in Interactive Visualizations via Active Search. *arXiv preprint*, 2020.

Quan Nguyen, Mason Seeger, and Steven Bogaerts. Ensembles of Gradient Boosting Regressors in Housing Price Error Prediction. *Midstates Conference For Undergraduate Research in Computer Science and Mathematics (**MCURCSM**)*, 2017.

Books & Other Media

Peter Farrell, Alvaro Fuentes, Ajinkya Sudhir Kolhe, **Quan Nguyen**, Alexander Joseph Sarver, Marios Tsatsos. The Statistics and Calculus with Python Workshop: A comprehensive introduction to mathematics in Python for artificial intelligence applications. *Packt Publishing Ltd, 2020*.

Alessandro Palmas, Emanuele Ghelfi, Alexandra Galina Petre, Mayur Kulkarni, Anand N.S., **Quan Nguyen**, Aritra Sen, Anthony So, Saikat Basak. The Reinforcement Learning Workshop: Learn how to apply cutting-edge reinforcement learning algorithms to a wide range of control problems. *Packt Publishing Ltd, 2020*.

Quan Nguyen. Deep learning with Google Colab: Implementing and training deep learning models in a free, integrated environment. *Udemy, 2019*.

Quan Nguyen. Hands-on Application Development with PyCharm: Accelerate your Python applications using practical coding techniques in PyCharm. *Packt Publishing Ltd, 2019*.

Gabriele Lanaro, **Quan Nguyen**, Sakis Kasampalis. Advanced Python Programming: Build high performance, concurrent, and multi-threaded apps with Python using proven design patterns. *Packt Publishing Ltd, 2019*.

Quan Nguyen. Asynchronous Programming in Python for Web Scraping. *"Learn data science best practices" series of DataScience.com (part of Oracle), 2018*.

Quan Nguyen. Mastering Concurrency in Python: Create faster programs using concurrency, asynchronous, multithreading, and parallel programming. *Packt Publishing Ltd, 2018*.

Awards & Honors

2021	Honors Distinction (awarded to outstanding Ph.D. students), Washington University
2019	Robert J. Thomas Outstanding Senior Award, DePauw University
2019	David Becker Fellow, Information Technology Associates Program, DePauw University
2019	Outstanding Chapter Present, DePauw University
2017 - 2019	Perennial Scholarship Recipient, Sigma Nu National Fraternity
2015 - 2019	Science Research Fellow, DePauw University
2019	Phi Beta Kappa, DePauw University
2018	Youngest Published Book Author, Packt Publishing
2018	Wylie Condit Scholarship Recipient, Computer Science Department, DePauw University
2018	Wylie Condit Scholarship Recipient, Mathematics Department, DePauw University
2016	First Place, Michigan Autumn Take-Home (MATH) Mathematics Challenge
2015	Second Place, Vietnamese National Mathematical Olympiad

Activities

2020	Chair of the Program Committee, PyMCon
2020 - present	Member of the Liberman Advisory Committee, Washington University in St. Louis
2019 - present	Member of the Graduate Student Association, Washington University in St. Louis
2017 - present	Writer for the Python Software Foundation (PSF)
2018 - 2019	President of the DePauw Data Science Group (DPUDS), DePauw University
2018 - 2019	Present of the Beta Beta chapter of Sigma Nu fraternity, DePauw University