30-Mar-25

QUAN NGUYEN

Department of Computing Science
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EDUCATION

2016 – 2020 **Ph.D., Education Technology**, The Open University, United Kingdom.

2015 – 2016 **M.Sc. Economics & Information Management**, Maastricht University

2012 – 2015 **B.Sc., Economics**, Maastricht University, Netherlands

APPOINTMENTS

08/2024 – now **Assistant Professor,** Department of Computing Science, Thompson Rivers University, Canada

08/2021 – 08/2024 **Postdoctoral Research & Teaching Fellow,** Department of Statistics, University of British Columbia, Canada

10/2019 – 08/2021 **Postdoctoral Research Fellow** in Education Data Science, School of Information, University of Michigan, United States.

Affiliated Faculty, Michigan Institute of Data Science

01/2021 – 06/2021 **Adjunct Lecturer, t**he online Master of Applied Data Science School of Information, University of Michigan

01/2018 – 07/2019 **Associate Lecturer** in Applied Statistics, University of Arts London.

10/2016 – 10/2019 **Data Analyst & Research Associate,** Open University UK

AWARDS AND FELLOWSHIPS

Best full paper award, 8th International conference on Learning Analytics & Knowledge (LAK18), Sydney, Australia, 2018 (355 submissions, 30% acceptance rate)

Best paper award, 5th conference of Learning and Collaboration Technologies, organized as part of the 19th International conference in Human-Computer Interaction (HCII17), Vancouver, Canada, 2017 (4,340 submissions, 28% acceptance rate)

Best paper award, at the 16th International Conference on Cognition and Exploratory Learning in Digital Age (CELDA 2019).

Research Excellence Awards – runner up ($1,200) - Impact of Research on OU Teaching & Learning, Curriculum and Students, 2018

Leverhulme Doctoral Scholarship (£70,000) PhD funding for three years 2016-2019

Travel scholarship, ($2,000), Best paper International Alliance session, London Festival of Learning, UK, 2018.

Travel scholarship, ($1,000), Doctoral consortium in the 7th International Conference of Learning Analytics & Knowledge (LAK17), 2017.

Travel scholarship, ($1250), Learning Analytic Summer Institute (LASI) 2019, Vancouver, Canada

RESEARCH GRANTS (total: $137,000)

Exploring the impact of generative AI in computer science education	**Awarded**
Sponsor: TRU's Undergraduate Apprenticeship Fund, TRU Innovation	$11,000
Quan Nguyen (PI), Shams Khan (RA), Jennie Vu (RA)	Oct 2024
Adaptive Quiz Generation Tool for Enhanced Exam Preparation	**Awarded**
Sponsor: TRU Undergraduate Research Experience Award Program	$6,000
Quan Nguyen (PI), Vansh Sethi (RA, co-PI), Yan Song	Nov 2024
Investigating How to Mitigate Bias in Predictive Models of Student Success Across Diverse Institutions	**Awarded** $60,000
Sponsor: Google	Oct 2021
Christopher Brooks (PI), Rene Kizilcec (co-PI)	
Co-applicants: Joshua Gardner, Quan Nguyen, Renzhe Yu	
Students' mobility patterns on campus and the implications for the recovery of campus activities post-pandemic.	**Awarded** $30,000
Sponsor: Michigan Institute for Data Science (MIDAS)	May-Dec 2020
Quan Nguyen (PI), Christopher Brooks, Daniel Romero, Tim McKay, Ben Koester	
Data-informed Learning Design for Future Schools	**Awarded**
Sponsor: Beijing Normal University	$20,000
Wayne Holmes (PI), Quan Nguyen*, Bart Rienties, Denise Whitelock, Jingjing Zhang (BNU), Manolis Mavrikis (UCL)	Jan – Dec 2017

*: Responsible for drafting the research grant proposal, developing the research design, carrying out the data analysis, and writing up for publication

SELECTED PEER-REVIEWED PUBLICATIONS

Please see the full list in my Google Scholar:
http://scholar.google.com/citations?user=2ELBBq4AAAAJ&hl=en

Citations 1639, h-index 20, i10-index 30 (As of Mar 25th, 2024)

1. Rienties, B., Tempelaar, D., **Nguyen, Q.,** & Rogaten, J. (2024). The use of data analytics to support the development of assessment practices in higher education. In *Research Handbook on Innovations in Assessment and Feedback in Higher Education* (pp. 194-209). Edward Elgar Publishing.
2. Gardner, J., Renzhe, Y., **Nguyen, Q.**, Brooks, C., Kizilcec, R. (2023). Cross-Institutional Transfer Learning for Educational Models: Implications for Model Performance, Fairness, and Equity. *Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency FaccT*, 1664–1684
3. Brooks, C., Vitomir, V., **Nguyen, Q.** (2023). Predictive Modelling of Student Success. The Handbook of Artificial Intelligence in Education.
4. Poquet, O., **Nguyen, Q.**, Kovanovic, V., Brooks, C., Dawson, S., & Biotteau, A. (2022). Grade-based similarity prevails in online course forums at scale. *Computers & Education, 178*, 104401. (**IF = 8.5**)
5. **Nguyen, Q.**, Rienties, B., Richardson, J. (2020). Learning analytics to uncover inequality in behavioural engagement and academic attainment in a distance learning setting. *Assessment & Evaluation in Higher Education, 45 (4), 594-606.* **(IF = 4.9)**
6. **Nguyen, Q.,** Poquet, O., Brooks, C., Li, W. (2020). Exploring homophily in demographics and academic performance using spatial-temporal student networks. *In proceedings of 13th International Conference on Educational Data Mining (EDM 2020), pp. 194 – 201*.
7. Rienties, B., Tempelaar, T., **Nguyen, Q.**, Littlejohn, A. (2019). Unpacking the intertemporal impact of self-regulation in a blended mathematics environment. *Computers in Human Behavior*, 100, 345-357.
8. **Nguyen, Q**., Rienties, B., Toetenel, L., Ferguson, R., & Whitelock, D. (2017). Examining the designs of computer-based assessment and its impact on student engagement, satisfaction, and pass rates. *Computers in Human Behavior*, 76, 703-714.

TEACHING EXPERIENCE

09/2024 – now **Master of Data Science, Thompson Rivers University**

- DASC 5410: Database management for Data Science
- ADSC 3610: Database Systems in Applied Data Science 2
- ADSC 3910: Applied Data Science Integrated Practice 2
- ADSC 4910: Applied Data Science Integrated Practice 3
  Topics: Deep learning, neural network, E-R modelling, SQL, MongoDB, Spark, Data ethics and privacy

08/2021 – 08/2024 **Instructor, Master of Data Science.** UBC (cohort 80-120 students)

- **BAIT 509 - Machine learning in business applications** (Python)
  Topics: decision trees, KNN, SVM, feature engineering, model evaluation, hyperparameter optimization, linear regression, logistic regression.
- **DSCI 511 - Python programming for data science** (Python)
  Topics: Object oriented programming, function, class, data manipulation with numpy, pandas
- **DSCI 551 - Descriptive Statistics and Probability for Data Science** (R)
  Topics: Random variables, conditional probability, joint probability
- **DSCI 552 - Statistical Inference and Computation I** (R)
  Topics: Estimation, bootstrapping, hypothesis testing, ANOVA, t-tests, MLE
- **DSCI 542 - Communication and Argumentation in Data Science**
  Topics: Technical writing, presentation skills, statistical misconceptions
- **DSCI 574 - Temporal and Spatial Models (Python)**
  Topics: Time-series, ARIMA, LSTM, deep learning, kriging
- **DSCI 100 - Introduction to Data Science** (~180 students x 2 terms) (R)
  Topics: data manipulation in tidyverse, ggplot2, KNN, linear regression
- **STAT 201 - Statistical Inference for Data Science** (~ 160 students) (R)
  Topics: Estimation, bootstrapping, hypothesis testing, ANOVA, t-test

09/2022 – now **Capstone coordinator**, Master of Data Science, UBC

Provided oversight and coordination for the MDS capstone program, comprised of 20 data science projects in collaboration with industry partners and a cohort of 80-100 students. Directly mentored six data science projects across a wide range of sectors:

- Forecasting models of stock price
- Forecasting models of energy's price
- Forecasting models of recycling demand and surge pricing model
- Identifying soccer formation from optical tracking and match event data
- Recommender system for career advising

01-05/2021 **Adjunct Lecturer**. **Master of Applied Data Science** – Online. School of Information, University of Michigan. (Cohort ~ 170 students)
SIADS 505 - Data Manipulation (pandas) - Python
SIADS 532 - Data Mining I (item sets, vectors, matrices, sequences) - Python
SIADS 632 - Data Mining II (N-gram, Hidden Markov, time-series) - Python
SIADS 680 - Learning Analytics (Supervised Learning, Data viz) - Python

07/2021, 2022 Workshop leader (Temporal and sequential analysis for education), Learning Analytics Summer Institute.

01/2018-07/2019 **Associate Lecturer. Applied Statistics**, University of Arts London. Design syllabus, give lectures, supervise, and carry out assessments in Applied Statistics for social sciences in 4 undergrad classes (20-25 students per class)

Fall 2013, 2015 **Teaching Assistant. Quantitative Methods I**, Maastricht University. Facilitate computer lab sessions of 15 undergrad classes (30 students per class).

Spring 2016 **Teaching Assistant. Management Information System**, Maastricht University. Facilitate problem-based learning tutorials of 3 undergrad classes (12-15 students per class).

INVITED TALKS & RESEARCH VISITS

2024 **University of Toronto**, Department of Mechanical Engineering, Toronto, ON Mar 8th

2023 **University of British Columbia**, Department of Statistics, Vancouver, BC, April 8th

2020 **University of Texas, Arlington**, LINK research lab. Arlington, TX, Jan 17th.

2019 **University of Michigan,** Center of Academic Innovation. Ann Arbor, MI, Nov 8th

2018 **London Festival of Learning,** Best papers alliance. "Linking students' timing of engagement to learning design and academic performance". London, June 27th

2018 **Blackboard.** "Linking students' timing of engagement to learning design and academic performance". Webinar, June 14th

2017 **University of Edinburgh,** research visit hosted by Prof. Dragan Gasevic and Prof. Yannis Dimiatris, Edinburgh

2017 **Open University UK,** OU Learning Design/TEL Special Interest Group. "Informing learning design with learning analytics". Milton Keynes, UK, September 20th

2017 **Open University UK,** "Debunk bullshit in statistics – Misconceptions, misinterpretations, and misrepresentation of statistics in social science and beyond", Milton Keynes, UK, December 7th

2016 **JISC Beyond Learning Analytics**. "Unravelling the dynamics of instructional practice. A longitudinal study on learning design and VLE activities". Milton Keynes, UK, October 26th

ACADEMIC SERVICES

Reviewer: IEEE Transactions on Learning Technologies, Journal of Computer Assisted Learning, Journal of Learning Analytics, Learning Analytics & Knowledge (LAK) conference, Assessment in Higher Education, Computers and Education, Artificial Intelligence in Education (AIED)

Guest Panel: LAK20 doctoral consortium, EARLI-JURE 2017

Committee member, Computer &Learning Research Group (CALRG), Open University

Social media chair, 8th Learning Analytics & Knowledge conference (LAK18)

PROFRESSIONAL MEMBERSHIPS

2020 – now	Michigan Institute for Data Science (MIDAS), University of Michigan
2019 – now	American Educational Research Association (AERA)
2017 - now	Society of Learning Analytics Research (SoLAR)
2017	European Association for Research on Learning and Instruction (EARLI)