

HUYEN N. NGUYEN

PhD Student in Computer Science
Texas Tech University
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RESEARCH INTERESTS

Data visualization methods and applications that support visual analytics and data analysis from large scale data; Specialized methods in machine learning for computer vision applications.

EDUCATION

Texas Tech University, Lubbock, Texas, USA 09/2018 - present
PhD Student in Computer Science

Hanoi University of Science and Technology, Hanoi, Vietnam 2013 - 2018
Bachelor in Information Systems, 5-year Engineering Program
Thesis title: Multi-label classification on a real-life photo gallery based on Deep Learning

PUBLICATIONS

Published

- **Huyen N. Nguyen** and Tommy Dang. “EQSA: Earthquake Situational Analytics from Social Media,” 2019 IEEE Conference on Visual Analytics Science and Technology (VAST), Vancouver, BC, Canada, 2019, pp. 142-143. doi: 10.1109/VAST47406.2019.8986947.
- **Huyen N. Nguyen**, Vinh T. Nguyen, Ngan V.T. Nguyen, Vung Pham and Tommy Dang. “IoTNegViz: An interactive tool for visualizing negative aspects of IoT,” 2018 IEEE International Conference on Big Data (Big Data), Seattle, WA, USA, 2018, pp. 4565-4568. doi: 10.1109/BigData.2018.8621984.
- Dy Le, Vung Pham, **Huyen N. Nguyen**, and Tommy Dang, “Visualization and Explainable Machine Learning for Efficient Manufacturing and System Operations,” Journal of Smart and Sustainable Manufacturing Systems 3, no. 2 (2019): 127-147. doi: <https://doi.org/10.1520/SSMS20190029>.
- Hao Van, **Huyen N. Nguyen**, and Tommy Dang. “HackerNets: Interactive Network Visualization for Media Conversations in Internet of Things, Big Data, and Cybersecurity,” The 2nd International Workshop on Big Data engineering and Analytics in Cyber-Physical Systems (BigEACPS’19), 2019.
- Tommy Dang, **Huyen N. Nguyen**, and Vung Pham. “WordStream: Interactive Visualization for Topic Evolution.” In J. Johansson, F. Sadlo, and G. E. Marai, eds., EuroVis 2019 - Short Papers. The Eurographics Association, 2019. doi: 10.2312/evs.20191178.
- Minh T. Nguyen, **Huyen Nguyen**, Keith Teague. “Wavelet-based Energy Efficient Data Collection Algorithm in Wireless Sensor Networks,” ICSES Transactions on Computer Networks and Communications (ITCNC), vol. 4, no. 2, pp. 3-10, Jun. 2018.

Accepted

- Tommy Dang, Vung Pham, **Huyen N. Nguyen**, and Ngan V.T. Nguyen. “AgasedViz: Visualizing Groundwater Availability of Ogallala Aquifer, USA,” In Environmental Earth Sciences Journal.

FUNDED GRANTS

Visionary Grant on *Visualizing Qualitative Data for Science and Education*, Gordon Research Conference on Visualization in Science and Education, 2019, supported by NASA, to characterize current trends and explore potential methods in qualitative data visualization (\$10,000)

EXPERIENCE

Teaching Assistant 09/2019 - present

Department of Computer Science, Texas Tech University, USA

- Supported professors in graduate and undergraduate courses: Intelligent System, Logic for Computer Scientists, and Software Engineering II.
- Graded students' assignments, tests and programming source codes.
- Helped students in understanding coursework materials.

Research Assistant 09/2018 - 09/2019

Interactive Data Visualization Lab, Texas Tech University, USA

- Developed web-based visualization for large structured data using d3js library. Language: Javascript.
- Explored and analyze patterns from visualization to discover insights and underlying models.
- Collaborated with domain experts: Soil scientists, field technician supervisors and political science experts, for building models and case studies.

Research Student Assistant 10/2015 - 06/2018

Data Science Lab, Hanoi University of Science and Technology, Vietnam

- Evaluated different models for solving computer vision problems.
- Implemented Convolutional Neural Networks for object recognition and object detection in Python.

Intern 06/2016 - 08/2016

Vietnam Communications Corporation - VC Corp, Vietnam

- Worked with Hadoop and Apache Spark processing frameworks to perform big data-related tasks, including anomaly detection projects in big data.
- Implemented MapReduce framework to solve the file storage issues using Maven. Language: Java.

ACTIVITIES

Reviewer, ICSES Transactions on Computer Networks and Communications (ITCNC), 2020.

Poster Presenter, *Applying Topic Evolution Visualization into Educational Domain*, Gordon Research Conference on Visualization in Science and Education, 2019.

Poster Presenter, *Interactive Visualization for Earthquake Analytics from Social Media Data*, Workshop in Scientific Computing meets Machine Learning and Life Sciences, Texas Tech University, 2019.

AWARDS AND ACHIEVEMENTS

International Teaching Assistant Certificate, *Texas Tech University*, completed The ITA Workshop in the summer of 2018.

University Scholarship, *Hanoi University of Science and Technology*, for students with excellent academic performance (top 5% class), 2016.

Full Scholarship, *Temasek Foundation, Singapore*, for top 20 students from Hanoi University of Science and Technology in the exchange program in Singapore, in Temasek Foundation Specialists' Community Action and Leadership Exchange (TFSCALE), 2015.