Viet Le

Email : vqle21@gmail.com
Mobile: +1-978-837-2726
Website: https://vqle21.github.io

Education

Northeastern University (NEU) — Boston, MA
Ph.D. Candidate - GPA: 3.67 — *Sept. 2016 – TBD*

University of Massachusetts Lowell (UML) — Lowell, MA
M.S. in Civil and Environmental Engineering (Structural Engineering) - GPA: 4.00 — *Sept. 2015 – May 2016*
B.S. in Civil and Environmental Engineering - GPA: 3.98 — *Sept. 2011 – May 2015*

Professional and Research Experience

Northeastern University — Boston, MA
Structural Engineering Graduate Research Assistant — *Sept. 2016 - Present*

- Developed a performance based engineering approach to the analysis of non-stationary wind loads on vertical structures using the wavelet-Galerkin approach for numerical solution
- Conducted wind tunnel experiments to physically simulate the gust-front flow of an impinging downdraft and its effects on a tall building model

Structural Engineering Teaching Assistant — *Sept. 2017 - Dec. 2018*

- Provided assistance for Steel Design courses. Graded homework, gave lectures, and held office hours for students
- Supervised Engineering Materials Lab courses. Conducted lab experiments with student groups and graded lab reports

GCP Applied Technologies — Cambridge, MA
Research Intern — *June 2016 - Aug. 2016*

- Performed image analysis and data clustering techniques for the improvement of quality control for concrete mixes and the mitigation of the environmental impact of concrete production

University of Massachusetts Lowell — Lowell, MA
Structural Engineering Research Assistant — *May 2013 - May 2016*

- Involved in the multiphysical nondestructive evaluation of cementitious composites using microwave imaging radar, ultrasonic testing, dielectric measurements with a contact probe, and an unmanned aerial vehicle (UAV)

Software Skills

- **Proficient/Working Knowledge**: MATLAB, Microsoft Office, Python, LaTeX
- **Basic/Developing Knowledge**: ANSYS FLUENT, AutoCAD, C++, SQL, LabVIEW

Awards and Honors

- **Northeastern University** - College of Engineering Dean's Fellowship — *May 2016*
- **American Concrete Institute (ACI)** - Kumar Mehta Scholarship — *May 2016*
- **U.S. Department of Energy** - Integrated University Program Fellowship — *May 2015*

Community Outreach

- NEU ASCE Structural Engineering Institute (SEI) Student Chapter President — *Sept. 2018 - Sept. 2019*
- UML Tau Beta Pi (TBP) Engineering Honors Society President — *Sept. 2014 - Sept. 2015*
- UML Vietnamese Students Association (VSA) President — *Sept. 2014 - Sept. 2015*

Publications and Presentations

Peer-Reviewed Journal Publications

- Le, V.; Caracoglia, L. (2018). "Computationally Efficient Stochastic Approach for the Fragility Analysis of Vertical Structures Subjected to Thunderstorm Downburst Winds." *Engineering Structures*. 165: 152-169.
- Le, V.; Caracoglia, L. (2018). "Simulating gust front downburst outflows using a multi-blade transient flow device in a small-scale wind tunnel." *Journal of Wind Engineering and Industrial Aerodynamics*. Submitted.
- Yu, T.; Twumasi, J.O.; Le, V.; Tang, Q; D'Amico, N. (2017). "Surface and subsurface remote sensing of concrete structures using synthetic aperture radar imaging." *Journal of Structural Engineering*. 143 (10): 04017143.

Conference Papers and Presentations

- Le, V.; Caracoglia, L. (2018). "Performance-based Assessment of Tall Buildings Subjected to Thunderstorm Downburst Loads Using the Wavelet-Galerkin Approach." Presented at: *Engineering Mechanics Institute (EMI) Conference 2018*, Massachusetts Institute of Technology, Cambridge, MA, USA.
- Le, V.; Caracoglia, L. (2017). "A Preliminary Examination of Structural Fragility for a Vertical Cantilever Structure Subjected to Thunderstorm Downburst Loading." Full paper presented and found in: *Proceedings of the 13th Americas Conference on Wind Engineering (ACWE13) Conference*, University of Florida, Gainesville, Florida, USA.
- Le, V.; Yu, T.-Y.; et al. (2016)."Sizing and Ranging Criteria for SAR Images of Steel and Wood Specimens." Full paper presented and found in: *2016 SPIE Proceedings Vol. 9804: Nondestructive Characterization and Monitoring of Advanced Materials, Aerospace, and Civil Infrastructure*, Las Vegas, Nevada, USA.
- Le, V.; Yu, T.-Y., (2015). "Mass and Stiffness Estimation using Mobile Devices for Structural Health Monitoring." Full paper presented and found in: *2015 SPIE Proceedings Vol. 9437: Nondestructive Characterization and Monitoring of Advanced Materials, Aerospace, and Civil Infrastructure*, San Diego, California, USA.

Poster Presentations

- Le, V.; Caracoglia, L. (2018). "Investigations on the Structural Performance of Building Structures Subjected to Non-Stationary Thunderstorm Wind Loads by Wavelet-Galerkin Numerical Methods." Poster presented at: *2018 Research, Innovation and Scholarship Expo (RISE: 2018)*, Northeastern University, Boston, MA, USA.
- Le, V.; Caracoglia, L. (2018). "A MATLAB®-Based Numerical Algorithm for Stochastic Simulation of Structural Load, Response and Damage (MATLAB® SLRD) Induced by Non-stationary Thunderstorm Downbursts." Poster presented at: *2018 MathWorks SMART Laboratory Northeastern University Collaboration Day Event*, Northeastern University, Boston, MA, USA.