Grzegorz ”Gregory” Kakareko

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EDUCATION

Ph.D. Florida State University — May 2015 - October 2019
Dissertation: Multi-scale Hurricane Loss Estimation — Civil Engineering

M.S. Florida State University — May 2015 - September 2019
Thesis: Convolutional Neural Networks for Hurricane Road Closure Probability and Tree Debris Estimation — Computer Science

M.S. Warsaw University of Technology — October 2013 - March 2015
Thesis: Effective Stiffnesses of Plates of Repetitive Structure — Civil Engineering (Theory of Structures)

B.S. Warsaw University of Technology — October 2009 - July 2013
Thesis: Dynamic Analysis of the Footbridge Considering Different Dampers Solutions — Civil Engineering (Constructions)

PROFESSIONAL EXPERIENCES

Data Scientist, Risk Management Solutions, HWind Tallahassee — July 2017 – August 2019
I was responsible for the following tasks: development of the HWind products, global weather data collection, maintenance and development of the HWind database, development of the web applications, and maintenance of the HWind servers. Majority of the products were created in Python and PSQL.

Research Assistant, Florida State University — May 2015 - Present
During my Ph.D. I worked in many prestigious projects, including the NSF and NOAA sea grant. During that time, I had a chance to combine the knowledge from engineering and computer science departments. The best description of my duties as the research assistant is the work that was published during my Ph.D.

Teaching Faculty, Warsaw University of Technology — October 2014 - April 2015
I had a pleasure to teach the Computer Engineering Graphics class in Warsaw University of Technology for two semesters. The aim of the course was to introduce students to 3D modeling and CAD systems.

Site Engineer, Bridge Construction Strabag (internship) — January 2013 - July 2013
My duties included: managing parts of construction projects, undertaking surveys, supervising contracted staff.

REFEREED JOURNAL PAPERS

Kakareko, G., Jung, S., Ozguven, E.E., (under review) Estimation of tree failure consequences due to high winds using convolutional neural networks

Kakareko, G., Jung, S., Mishra, S., Vanli, O.A., (under review) Bayesian capacity model for hurricane vulnerability estimation

Kakareko, G., Jung, S., Vanli, O.A., 2019. Hurricane Risk Analysis of the Residential Structures Located in Florida. . Sustainable and Resilient Infrastructure, 1-15.

Kocatepe, A., Ulak, M.B., **Kakareko, G.**, Ozguven, E.E., Jung, S., Arghandeh, R., 2019. Measuring the accessibility of critical facilities in the presence of hurricane-related roadway closures and an approach for predicting future roadway disruptions. Natural Hazards 95, 615-635.

Mishra, S., Vanli, O.A., **Kakareko, G.**, Jung, S., 2019. Preventive maintenance of wood-framed buildings for hurricane preparedness. Structural Safety 76, 28-39.

Kakareko, G., Jung, S., Vanli, O.A., Tecle, A., Khemici, O., Khater, M., 2017. Hurricane loss analysis based on the population-weighted index. Frontiers in Built Environment 3, 46.

CONFERENCE PAPERS AND PRESENTATIONS

Amirinia, G., Jung, S., **Kakareko, G.**, 2019. Effect of piezoelectric material in mitigation of aerodynamic forces, Sensors and instrumentation, aircraft/aerospace and energy harvesting, volume 8. Springer, pp. 33-40.

Kocatepe, A., Ulak, M.B., **Kakareko, G.**, Pinzan, D., Cordova, J., Ozguven, E.E., Jung, S., Arghandeh, R., Sobanjo, J.O., 2018. Assessment of emergency facility accessibility in the presence of hurricane-related roadway closures and prediction of future roadway disruptions. Transportation Research Board 97th Annual Meeting

Kakareko, G., Jung, S., Vanli, O.A., Tecle, A., Khemici, O., Khater, M., 2017. Hurricane loss analysis of wood-frame structures in Florida. The 13th Americas Conference on Wind Engineering (13ACWE)Gainesville, Florida USA, May 21-24, 2017.

Kakareko, G., Jung, S., Ozguven, E.E., Weresa S., 2017. A new approach for road closure probability estimation caused by hurricane winds. 2017, San Diego, California, USA, June 4-7

Kakareko, G., Jung, S., Vanli, O.A., Mishra, S., Vulnerability estimation of low-rise buildings against wind hazard considering uncertainty in building components, Engineering Mechanics Institute Conference 2016, Nashville, TN, USA, May 22-26

SKILLS

Programing	Python, PSQL, SQL, C++, C, Matlab, HTML, CSS, Julia, Wolfram, Mathematica, APDL
Software	AutoCAD, ANSYS, ABAQUS, LS-DYNA, LabView, ArcGIS
Office Applications	Latex, Microsoft office
Operating Systems	Linux, OS, Windows

SCHOLARSHIPS

Federal Alliance for Safe Homes (FLASH) Scholarship 2016	2016
Dean Scholarship for Sport Achievements	2009-2015
Special Dean Scholarship for Sport Achievements	2013
Dean Scholarship for Academic Achievements	2010-2012
Podlaskie State Marshal Scholarship for Sport Achievements	2012
President of the Bialystok City Scholarship for Sport Achievements	2012
Award from President of the Bialystok City (Diligentiae Medal)	2009

CERTIFICATIONS

Open Water Advanced Diver L2, Scientific Diving International, SCIDI

Drysuit Diver, Scientific Diving International, SCIDI

Lifeguard, International Life Saving Federation

VOLUNTEER ACTIVITIES

President of Polish Student Association in Florida State University	2016-2017
Vice President of the Academic Circle Theory of Construction	2013-2015

SPORT CAREER

In my life I took part in many sports disciplines (swimming, boxing, soccer), but as a sportsman I describe myself as a track & field runner. In this discipline, I was a multiple Polish Championship medalist (track & field), a national record holder (400 relay under 20). Moreover, I was a member of Polish national team for many years. I finished my sports career in order to establish my profession career.