

JAKUB RYBICKI, E.I.T.

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EDUCATION

University at Buffalo, State University of New York | Buffalo, NY

Master of Science (MS) in Civil Engineering - Geomechanics, Geotechnical and Geoenvironmental Engineering

May 2017

GPA: 3.2/ 4.0

Bachelors of Science (BS) in Civil Engineering

May 2016

GPA: 3.1/ 4.0

PROFESSIONAL EXPERIENCE

Assistant Engineer | NYS DOT - Geotechnical Engineering Bureau | Albany, NY

Oct. 2017 – Present

- Performed geotechnical analysis and design of deep and shallow foundations, earth retaining systems, thrust blocks and ground improvement methods
- Coordinated subsurface investigations through SPT borings, piezometers, inclinometers, and seismic refraction
- Conducted liquefaction analysis, settlement analysis and slope stability analysis
- Prepared field reports and geotechnical reports for bridges, retaining walls, culverts, expressway viaducts, sign structures and a DOT building in New York State
- Conducted dynamic pile load tests on driven piles during construction phase
- Attended meetings and discussed project details with regional engineers, geologists and contractors

Research Assistant | SUNY University at Buffalo | Buffalo, NY

Feb. 2017 – Sept. 2017

- Geomechanical assessment of seabed subsidence/upheaval impacts on stability of offshore foundation piles
- Developed a numerical model calibrated using case history data from literature to assess reservoir-induced deformation effects on the bearing capacity of offshore piles using FLAC3D.

Teaching Assistant | SUNY University at Buffalo | Buffalo, NY

Aug. 2016 – May 2017

- Conducted weekly recitation classes for the Fall Statics course as well as proctored and graded exams
- Conducted weekly laboratory sessions and graded reports for Spring Soil mechanics and Hydrology courses

Engineering Intern | Midland Asphalt Materials Inc. | Buffalo, NY

May 2016 – Aug. 2016

- Completed pavement preservation projects using chip sealing, Fibermat, Novachip, crack sealing, and cold mix paving across the states of New York and Pennsylvania
- Conducted laboratory tests on pavement materials (penetration tests, viscosity tests, specific gravity, sieve analysis, etc.)
- Utilized lean-management methods to improve the construction process by lower project costs

Horizontal Construction Engineer (12N) | U.S. Army National Guard | Horseheads, NY

Aug. 2012 – Aug. 2015

- Operated motorized graders, bulldozers, scrapers, loaders, excavators, trucks and rollers to excavate, move and grade earth.
- Worked with a team on completing multiple engineering projects and operations including land clearance, surveying, road construction, drainage and demolition in various areas in New York State
- Provided aid to impacted areas during NY state emergencies through the use of heavy construction equipment

TECHNICAL SKILLS AND QUALIFICATIONS

Software Experience: FLAC3D, AutoCAD, MicroStation, LPile, GROUP, GRLWeap, FB-MultiPier, PYWall, ArcGIS, Matlab, STAAD-Pro, and Microsoft Office programs (Excel, PowerPoint, etc.)

Relevant Coursework: Earthquake Engineering and Foundation Dynamics, Geographical Information Systems (GIS), Tunneling and Reservoir Engineering, Advanced Mechanics of Solids, Structural Reliability and Safety, Groundwater Engineering, Foundation Engineering, Steel Design, Construction Estimating and Project Management

PUBLICATIONS

1. Rybicki, J., & Atefi Monfared, K. A Numerical Study of Reservoir-induced Subsidence and Upheaval Effects on Bearing Capacity of Offshore Piles. International Foundations Congress and Equipment Expo (IFCEE), Orlando, Florida, March 2018.
2. Atefi Monfared, K. & Rybicki, J. Production versus injection induced poroelasticity surrounding wells. Journal of Petroleum Science and Engineering, Volume 162, March 2018, Pages 102-113.