Robert Chlumsky, MASc., P.Eng.

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SUMMARY OF COMPETENCIES

- ☑ Hydrologic, hydraulic and coastal applications, e.g. Raven, HEC-RAS, SWAN
- ☑ Data analysis, statistics, and software package development; e.g. R, Python, C#
- ☑ Extensive practice in manual and automatic calibration of hydrologic models
- ☑ Geospatial processing and generation of report-quality figures
- ☑ Technical writing for engineering reports, manuals, and journal publications
- ☑ Presentation of technical materials at conferences and public engagements

EDUCATION

Doctor of Philosophy Candidate, Civil Engineering (Water), University of Waterloo. Jan 2020 – present. Dissertation Topic: Optimization of blended hydrologic model structures.

Master of Applied Science, Civil Engineering (Water) at the University of Waterloo, Collaborative Water Program, Waterloo, ON, Sept 2015 – Sept 2017.
Dissertation: "Rigorous validation of hydrologic models in support of decision-making".

Bachelor of Applied Science, Honours Environmental Engineering, Water Resources Option and Statistics Option, Co-operative Education at the University of Waterloo (With Distinction – Dean's Honour List), June 2015.

PROFESSIONAL AFFILIATIONS

- Licensed Member, Professional Engineers Ontario (PEO)
- Member, Canadian Water Resources Association (CWRA)
- Board of Directors, CWRA Ontario Branch
- Member, Canadian Society for Hydrological Sciences (CSHS)
- Steering Committee, CSHS-hydRology
- Former Vice Chair Operations, Students of the Water Institute Graduate Section

PROJECT EXPERIENCE

- Paris Flood Protection Master Plan, Brant County (ongoing)
- North Perimeter Hydrology Study, BluMetric Environmental (ongoing)
- Colborne Slope Stability Environmental Assessment, City of Brantford (ongoing)
- Shoreline Protection Repairs Detailed Design, Pinchin Ltd. (2019)
- Shoemaker Creek Detailed Design, City of Kitchener (2019)
- London Urban Waterways Inventory and Assessment, City of London (2018)
- Victoria Mine Surface Water Study Update, KGHM International (2017)
- Saint John Basin Hydrologic Model Update, New Brunswick Department of Environment and Local Government (2017)

WORK EXPERIENCE

Water Resources Engineer, Ecosystem Recovery Inc., August 2017 - present

- Hydrologic and hydraulic studies in support of detailed design and assessments
- Detailed design of armourstone structures and shoreline protection features
- Economic damages calculation and evaluation of alternatives for flood-related EA
- Contractor oversight of river restoration and other project constructions on site
- Creek inventories, topographic surveys, and other field data collection
- Preparation of proposals for submission on various RFPs/RFQs
- Engagement with public at Public Information Centres related to technical projects
- Writing, preparation and sealing of engineering reports
- Various data analysis, geospatial processing, and figure preparation for projects

Engineering and Planning Student, Regional Municipality of Waterloo,
Water Services Division, Spring 2014

- Generating water distribution models for urban and rural municiapal water supply
- Hydraulic model calibration and verification using SCADA database
- Geospatial analysis, data quality control, and script creation in ArcMap/Python

PEER-REVIEWED PUBLICATIONS

Craig, J.R., Brown, G., **Chlumsky, R.**, Jenkinson, W., Jost, G., Lee, K., Mai, J., Serrer, M., Snowdon, A., Sgro, N., Shafii, M., Tolson, B. (in press). Flexible watershed simulation with the Raven hydrological modeling framework. Environ. Model. Softw.

Anderson, E., **Chlumsky, R.**, McCaffrey, D., Trubilowicz, J., Shook, K. R., Whitfield, P. H. (2018). R-functions for Canadian Hydrologists: a Canada-wide collaboration. Canadian Water Resources Journal. https://doi.org/10.1080/07011784.2018.1492884

Galarneau, E., Makar, P. A., Zheng, Q., Narayan, J., Zhang, J., Moran, M. D. Bari, M. A., Pathela, S. , Chen, A., and **Chlumsky, R.** (2014). PAH concentrations simulated with the AURAMS- PAH chemical transport model over Canada and the USA. Atmospheric Chemistry and Physics. 14, 4065.

VOLUNTEER EXPERIENCE

- Legacy Martial Arts and Fitness Instructor, 2017-present
- Organized workshops and social events for students of the Water Institute (UW)
- World Water Day Volunteer, March 2016 and 2017
- City of Kitchener Bikefest Volunteer, Summer 2014

RECENT AWARDS AND ACCOMPLISHMENTS

- Engineering Excellence Doctoral Fellowship, University of Waterloo, 2020
- Engineering Dean's Entrance Award, University of Waterloo, 2020
- NSERC Alexander Graham Bell Scholarship – Master's
- President's Graduate Scholarship, University of Waterloo, 2016
- RBC Water Scholars Graduate Entrance Scholarship, 2015
- Fourth Degree Black Belt, Legacy Shorin Ryu