# CURRICULUM VITAE

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## EDUCATION

**PhD in Civil Engineering, University of Massachusetts, Amherst, MA** Present
Concentration: Environmental & Water Resources Engineering
Advisor: Dr. Colin Gleason

**Ba&Sc in Honours Environment, McGill University, Montreal, QC** 2018
Concentration: Hydrology & Water Resources, Minor: GIS & Remote Sensing
Thesis: *An Exploratory Analysis of Watershed Characteristics and Flow Class Variation in Unregulated Eastern Canadian Rivers* (advised by Dr. Michel Lapointe)

## SCHOLARSHIP

### In Revision/Review

Frasson, R.P.M., Durand, M.T., Larnier, K., Gleason, C.J., Andreadis, K.M., Hagemann, M.H., Dudley, R.W., Bjerklie, D.M., Oubanas, H., Garambois, P.A., Malaterre, P.O., Lin, P., Pavelsky, T.M., Monnier, J., **Brinkerhoff, C.B.**, David, C.H. (*in revision*). Exploring the factors controlling the error characteristics of the Surface Water and Ocean Topography mission discharge estimates.

Liu, S. Kuhn, C., Amatulli, G., Aho, K.S., Butman, D., Allen, G.H., Lin, P., Pan, M., Yamazaki, D., **Brinkerhoff C.B.**, Gleason, C.J., Raymond, P.A. (*in review*). Global climatology of carbon dioxide emission from streams and rivers.

### Published

**Brinkerhoff, C.B.**, Raymond, P.A., Maavara, T., Ishitsuka, I., Aho, K.S., Gleason, C.J. (2020). Lake Morphometry and River Network Controls on Evasion of Terrestrially Sourced Headwater $CO_2$. *Geophysical Research Letters,* https://doi.org/10.1029/2020GL090068

**Brinkerhoff, C. B.**, Gleason, C.J., Feng, D., Lin, P. (2020). Constraining Remote River Discharge Estimation Using Reach-Scale Geomorphology. *Water Resources Research, 56, e2020WR027949.* https://doi.org/10.1029/2020WR027949

Andreadis, K. M., **Brinkerhoff, C. B.**, & Gleason, C. J. (2020). Constraining the Assimilation of SWOT Observations With Hydraulic Geometry Relations. *Water Resources Research, 56(5)*, e2019WR026611. https://doi.org/10.1029/2019WR026611.

**Brinkerhoff, C. B.**, Gleason, C. J., & Ostendorf, D. W. (2019). Reconciling At-a-Station and At Many-Stations Hydraulic Geometry through River-Wide Geomorphology. *Geophysical Research Letters 46*(16) 9637-9647. https://doi.org/10.1029/2019GL084529.

**Conference Presentations (* virtual due to COVID-19 pandemic):**

**Brinkerhoff, C.B.**, Raymond, P.A., Maavara, T., Ishitsuka, I., Aho, K.S., Shaoda, L. Gleason, C.J. (2020, December*). Lake/reservoir controls on evasion of inland water $CO_2$ and implications for remote sensing of network-scale CO2 emissions. In *AGU Fall Meeting 2020*. AGU.

-Won AGU Fall Meeting 2020 OSPA Award (Outstanding Student Presentation Award)

**Brinkerhoff, C. B.**, Gleason, C. J., Lin, P., & Andreadis, K. (2019, December). Constraining Remotely-Sensed River Discharge Estimation Using Reach-Scale Geomorphology. In *AGU Fall Meeting 2019*. AGU.

Lin, P., Pan, M., Wood, E.F., Feng, D., Gleason, C.J., **Brinkerhoff, C.B.**, Yang, X., Pavelsky, T.M. (2020, May*). Scaling up the assessment of the SWOT discharge inversion algorithm to thousands of gauges globally. In *EGU General Assembly 2020*. EGU.

## RESEARCH & TEACHING EXPEREINCE

**Graduate Research Assistant (Dr. Colin Gleason's Fluvial@UMASS lab)** 2018-Present
Department of Civil & Environmental Engineering, University of Massachusetts, Amherst

**Teaching Assistant (Course: GIS for Engineers)** 2019
Department of Civil & Environmental Engineering, University of Massachusetts, Amherst

**Undergraduate Research Assistant (Dr. Bernhard Lehner's GlobalHYDRO lab)** 2017-2018
Department of Geography, McGill University

## HONORS & AWARDS

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| AGU Fall Meeting 2020 OSPA Award (Outstanding Student Presentation Award) | 2020 |
| NSF GRFP Honorable Mention | 2020 |
| McGill University SURA (Science Undergraduate Research Award)- $5,600 CAD | 2017 |
| Oklahoma State University NSF REU- $4,770 USD (declined) | 2017 |

## MEMBERSHIP, SERVICE, & SKILLS

*Member:* American Geophysical Union (AGU) 2018-Present
*Programming:* R, Stan, JavaScript, Command line tools, Python
*Software:* QGIS, Google Earth Engine, ArcGIS
*Reviewer:* Biogeosciences, Journal of Hydraulic Engineering

## REFERENCES

Colin Gleason, Assistant Professor (cjgleason@umass.edu) (PhD committee chair)
Department of Civil & Environmental Engineering, University of Massachusetts, Amherst, MA

Peter Raymond, Professor (peter.raymond@yale.edu) (PhD committee member)
School of the Environment, Yale University, New Haven, CT

Konstantinos Andreadis, Assistant Professor (kandread@umass.edu) (PhD committee member)
Department of Civil & Environmental Engineering, University of Massachusetts, Amherst, MA

Bernhard Lehner, Associate Professor (bernhard.lehner@mcgill.ca)
Department of Geography, McGill University, Montreal, QC