

# Zixuan Chen

## Curriculum Vitae

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### Education

- 2018-2021 **M.S.**, Department of ,Civil, Structural and Environmental Engineering SUNY University at Buffalo, NY, U.S. GPA 3.74.
- 2013-2017 **B.E.**, Shihezi University Xinjiang, China, GPA 81%, Rank 10%.

### Research Experiences

- Sep. 2020 **Groundwater Modeling** for Phytoremediation at the Ischua Creek Habitat Site, Machias, NY by **MODFLOW**.
- Jun. 2020 Hydrologic Evaluation of **Phytoremediation Barrier**.
- Jun. 2019 Examining the effectiveness of **Phytoremediation** at the Ischua Creek Habitat Site, Machias, NY.
- Developed a flow model for a nearby waste site to simulate Phyto capture and determine whether the pollutants can be controlled by the trees.
  - Integrated field data from an active poplar system with modeling simulations to explore conditions under which effective plume capture could be achievable.
- Mar. 2019 Regression analysis between **Sap Flow and Weather ( $ET_0$ )**.
- Conducted the linear regression and the nonlinear regression model to determine the relationship between Sap Flow between Weather.
- Sept. 2015 Analysis of the **Groundwater** under Manas Dam, Xinjiang China.
- Analyzed the buoyancy resulted by the groundwater under The Manas Dam.
- Jun. 2015 Scheme of **Drain and Storage** for municipal water.
- Designed a method to control a reservoir for municipal water.

### Class Projects

- May 2020 **Groundwater Modeling Calibration** for the Ledom watershed by MODFLOW.
- May 2019 Designing a **Secondary-Water Treatment Plant**.
- May 2019 Review and analysis different **Isotherm Expression** of for a set of data.
- Apr. 2019 **Water Modeling** for a Bloom at Illinois Rivers by using **HEC-RAS** during June 2018.
- Apr. 2019 Paper review: Fate and Transport of **Disinfection By-products** in Groundwater, and simulating the process by **MATLAB**.
- Mar. 2019 2D **Groundwater Modeling** at north campus, University at Buffalo.
- Dec. 2018 Paper review: **Per and Polyfluoroalkyl Substances** in Environment.
- Dec. 2018 Paper review: Anthropogenic Impacts **Precipitation and Evapotranspiration**.
- Nov. 2018 Paper review: **Solute Transport in Aquifers**: The Comeback of The Advection Dispersion Equation and The First Order Approximation.

## Research Position

Aug. 2020 Teaching Assistant, University at Buffalo SUNY, Buffalo, NY  
Jun. 2019 Research Assistant, University at Buffalo SUNY, Buffalo, NY  
Jun. 2017 Research Assistant, The Chinese Academy of Geology Science, Beijing

## Publication

AJ. Rabideau, K. Swensen, **Z. Chen**, FL. Santiago-Collazo, CE. Bronner, CS. Lowry, R. Gnat, and T. Lockwood. 2020. "Hydrologic Evaluation of a Poplar Phytoremediation Barrier." Under Review.

## Technical Skills

Programming PYTHON, R, MATLAB  
Software LATEX, MINITAB, AUTO-CAD, ARCGIS, SURFER  
Modeling VISUAL AEM, HEC-RAS, MODFLOW, SWMM