**LAN LIU, EI**

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http://bit.ly/eportlan

**EDUCATION**

**Auburn University, Auburn, Alabama, United States**  **2019-2020**

Doctor of Philosophy in Civil Engineering

GPA: 3.88/3.88

**Iowa State University, Ames, IA, United States**  **2018-2019**

Pursued Doctor of Philosophy in Civil, Construction & Environmental Engineering

GPA: 3.88/3.88

**Auburn University, Auburn, Alabama, United States**  **2016-2018**

Masters of Science in Civil Engineering

**GPA:** 3.63/4.00

**Auburn University, Auburn, Alabama, United States** **2014-2016**

Bachelors of Civil Engineering

**GPA:** 3.27/4.00

**Beijing University of Civil Engineering and Architecture, Beijing, China** **2012-2014**

Bachelors of Water Supply and Drainage Engineering

**GPA:** 3.13/4.00

**PROFESSIONAL EXPERIENCE**

**Stormwater Studio Group, Department of Civil Engineering, Iowa State University, Auburn University**

**Project: Construction Stormwater Analysis 2018-Present**

**Supervisor:** Dr. Michael A. Perez, Dr. Xing Fang, Dr. Jose G. Vasconcelos, Dr. Joey Shaw

**Position:** Graduate Research Assistant

**Responsibilities:** Developing an effective stormwater treatment system to improve the efficiency of nutrient, sediment, and other pollutant treatment. Identifying and analyzing the design parameters for the developed treatment system combined with electrocoagulation technology.

**Teaching Assistantship, Department of Civil, Construction & Environmental Engineering, Iowa State University**

**Classes: Project Management for Civil Engineers; Construction Planning, Scheduling, and Control 2018-2019**

**Responsibilities:** Developed course materials and Primavera P6 laboratory manuals. Graded assignments and exams. Assisted delivery of lectures about construction engineering which focuses on: projection management and construction planning, scheduling, and control.

**Environmental Engineering Group, Department of Civil Engineering, Auburn University**

**Project:** **The Estuarine Environments Research Program (EERP) 2017-2018**

**Supervisor:** Dr. Joel Hayworth, Dr. Mark Barnett, Dr. Xing Fang

**Position:** Graduate Research Assistant

**Responsibilities:** Performed UHPLC/MS/MS analysis; developed, validated and automated analytical methods; problem solve processes simultaneous determination; guided and trained the new assistants in laboratory.

**Application of 3D printing technology 08/2018-Present**

3D printing the designed model with AutoCAD 3D

Take responsibility of system setup, maintenance, and trouble shooting

**Development of the engineering design tool 05-12/2019**

Created silt fence design tool by developing VBA code.

Presented as the 1st author on 2020 IECA conference in Raleigh, North Carolina, USA.

**Review a manuscript for a journal paper: 08-09/2017**

Simple Optimization Model of Most Economic Channel for Run-of-the-River Power Plants

**Application of statistical analysis in engineering projects 04-05, 08-12/2017**

Conducted the t-test and perform ANOVA model in SPSS to demonstrate if the selected factors (restoration, residential distribution, runoff) affect water quality in Perdido Bay, AL

Conducted ANOVA model in R to make comparison between empty control group and experimental group and analyze the improvement in mechanical properties of biodegradable food packaging film.

**PUBLICATIONS AND CONFEFRENCES**

Mulabagal, V., **Liu, L.**, Qi, J., Wilson, C., & Hayworth, J. S. (2018). *A rapid UHPLC-MS/MS method for simultaneous quantitation of 23 perfluoroalkyl substances (PFAS) in estuarine water.* Talanta, 190, 95-102.

Whitman, B.，Schussler, J.，Perez, M., & **Liu, L.** (2019), *Hydraulic Performance Evaluation of Wattles used for Erosion and Sediment Control.* Journal of Irrigation and Drainage Engineering, (under reviewed)

**Liu, L.**, Perez, M., Whitman, B. (2020). *Development of Silt Fence Sediment Barriers Design Tool: A Performance Based Approach.* ASCE, (preparing).

**Liu, L.**, Perez, M., Whitman, B. (2020). *Evaluation of Scaled Lamella Settlers for Treating Suspended Sediment.* ASCE, (preparing).

Mulabagal, V., Wilson, C., Hayworth, J. S., 2016. *An UHPLC-MS/MS quantitative method for trace analysis of potential endocrine disrupting steroid hormones in estuarine sediments.* Rapid Communications in Mass Spectrometry, 31(5), 419-429. (Acknowledged)

**Liu,L.**, Perez, M., Whitman, B. (2020). *Designing Silt Fence Sediment Barriers: A Performance Based Approach.* Paper presented in 2020 Independent Educational Consultants Association (IECA) Annual Conference, Raleigh, NC, USA.

**Liu,L.**, Perez, M. (2019). *Development of Small-Scale Stormwater Treatment System Combined with Electrocoagulation.* Poster presented in 2019 Independent Educational Consultants Association (IECA) Annual Conference, Denver, CO, USA.

**HONORS AND AWARDS**

**IECA (Committee) 2019-Present**

**Chi Epsilon 2015-Present**

**Graduate Research Assistantship and Fellowship (Auburn, Iowa State) 2016-Present**

**Graduate College Scholar Program Fellowship (Iowa State) 2018-2019**

**LEED Green Associate certification 2018**

**Civil Engineering Graduate Fellowship (Auburn) 2016-2017**

**Engineer Intern #18204 2017**

**Auburn University Winter Camp Outstanding Performance Scholarship 2014**

**PROFESSIONAL AFFILIATIONS**

**Member: American Society of Civil Engineers Auburn University Student Chapter 02/2016-Present**

**Member: Engineers Without Borders 10/2017-05/2018**

**International Buddy Program 08/2014-05/2018**

Provided cultural exchange between American and international students

**Power-up meeting**   **03/2017**

Educated, engaged and encouraged more mothers and daughters to explore career opportunities in the construction industry

**E-Day**  **02/2016**

Provided tours for civil engineering department in Auburn University

**SKILLS AND SOFTWARE**

Bilingual (Chinese Mandarin; English); Proficient in multiple engineering software (ACD, ArcMap GIS, AutoCAD, Cura LulzBot, CulvertMaster, GMS, HEC-HMS, HEC-RAS, MicroStation, MATLAB, Primavera P6, R, @Risk, StreamStats, SPSS, SAP 2000, Visual Basic)