

YUHANG ZHANG

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EDUCATION

Johns Hopkins University • Baltimore, USA Aug 2019 – May 2021(Expected)
Master of Science in Engineering • *Civil and Systems Engineering (GPA: 4.0/4.0)*
Core Courses: Network Modeling, Operations Research, Intro to statistics, Time Series Analysis, Machine Learning

Central South University • Changsha, China Aug 2015 – Jun 2019
Bachelor of Engineering • *Civil Engineering (GPA: 89.44/100 (top 5%))*

SKILLS

- Python, R, Matlab, Julia, Tableau, C++, ArcGIS, Sumo, L^AT_EX, Auto CAD, Revit

ACADEMIC EXPERIENCE

JHU CSSE COVID-19 Dashboard Baltimore, USA Feb 2020 – Present
–*Volunteer*

- Collected and cleaned data from World Health Organization (WHO)
- Validated and compared data between WHO and CSSE

Research and Preparation of High-Performance Pervious Concrete Based on Sponge City
Changsha, China Apr 2018 – Apr 2019
–*Project Leader, Undergraduate Academic Research and Creative Experiment Program*

- Conducted literature review on pervious concrete
- Designed experiments to identify factors affecting the performance of pervious concrete
- Optimized water permeability and concrete strength

Mechanical Topics – Linear Controlling Algorithm Changsha, China May 2017 – Jun 2018
–*Project Member*

- Constructed an improved linear controlling algorithm and conducted an error adjustment method
- Completed and presented a short report related to control algorithm of assembling bridge

PROJECTS HIGHLIGHTS

Emergency Food Delivery Baltimore, USA Spring 2020

- Implemented model using Julia based on Capacitated Vehicle Routing Problem
- Employed Miller–Tucker–Zemlin formulation to eliminate subtours
- Accomplished flying routes of selected drones under different circumstances via ArcGIS

Beijing Metro System Network Baltimore, USA Fall 2019

- Represented distributions of metro stations and lines using ArcGIS
- Analyzed significance of centrality of different stations using multiple measurements
- Executed in python to find the shortest path between any two stations based on Dijkstra's Algorithm

Uncertainty Propagation in a Truss System Baltimore, USA Fall 2019

- Used Standard Monte Carlo Method (SMCM) to generate samples of the displacements of a specific node
- Used Antithetic Variates Method and compared variance of samples with SMCM

PRACTICAL EXPERIENCE

China Wuzhou Engineering Group Co., Ltd. Beijing, China Summer 2018
–*Assistant Structural Engineer*

- Participated in the design of a reinforced concrete military building
- Created structure working drawings using CAD, including reinforcement drawings of the columns, slabs, walls, and foundation