Zuzhao Ye

E-mail: zy1451@nyu.edu
Homepage: http://zuzhaoye.github.io

Education

- **Graduate Study** Transportation Engineering (GPA: 4.0/4.0) Sep. 2019 - Present
  New York University, Brooklyn, NY.
- **M.Sc.** Mechanical Engineering (GPA: 3.59/4.0) Sep 2015 - Jan 2017
  Boston University, Boston, MA.
- **B.E.** Thermal Science & Energy Engineering (GPA 3.63/4.3. Rank 9/48) Sep 2011 - Jun 2015
  University of Science and Technology of China, Hefei, China.

Working Experience

Performance Engineer @ *AECC Commercial Aircraft Engine, Shanghai, China* Aug 2017 – Aug 2019

- Developed anomaly detection algorithms for turbofan engines. Implemented methods include Kalman filter, Bayesian belief network, and moving average anomaly detection. A comparison study of these methods were performed. The algorithms were prototyped in Python.
- Integrated computational models of components to form an engine-level dynamic model, which was used to support design of control logics and field test decision-making. The model was built in Simulink.
- Developed data management software for test data storage, classification, and retrieval. The time of data analysis after each test in the team was reduced by more than 60%. Written in Python and backed by SQL.
- Developed Excel vba scripts for raw data cleaning.

Course Project Experience

Urban Transport Systems @ *New York University* Sep 2019 - Dec 2019

- Designed an insertion heuristic for an online vehicle routing problem with the objectives to be either minimizing the total travel distance of the fleet or the total waiting time of customers.
- Established an optimization model regarding implementing bike sharing system in Southeastern Brooklyn, NYC with the objective to be maximizing a mix of operator's profit and increased accessibility of subway.

Applied Data Science @ *New York University* Sep 2019 - Dec 2019

- Analyzed how universities in metropolitan area impact nearby rental price. Developed web scrapper to obtain online rental listings.

Research Experience

Research Assistant @ *NEFT Lab, Boston University* Sep 2015 - Sep 2016

- Established mathematical models for mass transport processes within graphene-oxide membranes.

Program Leader @ *University of Science and Technology of China* May 2013 – June 2015

- Designed and built a novel bee hive by utilizing solar energy to increase honey productivity.

Programming

Python | MATLAB & Simulink | SQL | Excel VBA | C

Courses

Undergraduate:	ODE & PDE | Linear Algebra | Probabilities & Statistics | Computer Programming | Data Structure and Database | Computational Methods | Fluid Mechanics | Statistical Physics
Graduate:	Optimization | Applied Data Science | Advanced Eng. Mathematics | Transportation System
Online:	Neural Network and Deep Learning (via Coursera with Andrew Ng)

Awards & Honors

- Graduate Fellowship *by Boston University*
- Graduate with Honors *by University of Science and Technology of China*
- National Inspiration Scholarship *by Ministry of Education of China*