

Yuanlv Chen

(Also spelled as: Yuanlyu Chen)

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EDUCATION

University of Electronic Science and Technology of China

Chengdu, China

B.E. in Industrial Engineering, School of Mechanical and Electrical Engineering

2020 - 2024

GPA: 3.43 / 4.0

Highlighted courses (score): Probability and Mathematical and Statistics (86), Engineering Mechanics (86), Stochastic Process and Its Applications (92), Operations Research (85), Systems Engineering (88), Reliability Engineering (90)

RESEARCH EXPERIENCE

Undergraduate Research

2022 - 2023

School of Mechanical and Electrical Engineering, UESTC

Advisor: Prof. Yan Shi

Publication: Uncertainty Analysis of Structural Output with Closed-Form Expression Based on Surrogate Model.

Research Assistant

2023 - Present

Center for System Reliability and Safety, UESTC

Advisor: Prof. Tangfan Xiahou

Project: Reliability Analysis of the Control Rod Mechanism.

Research Assistant (Remote)

2024 - Present

SCALE Lab, Northwestern University

Advisor: Prof. Yiping Lu

Project: Online Dynamic Mode Decomposition through Debiasing.

PROJECTS

UESTC Innovation Training Program

2022 - 2023

Application software for the reliability prediction of electronic products in medical devices and systems.

Reliability analysis of diesel engines

2023

An reliability engineering project, analyzing data validation, making statistical discoveries and predicting future failure modes and frequency based on the real maintenance log of oil pump.

PUBLICATIONS

Yuanlv Chen, Yan Shi, Hong-Zhong Huang, Dong Sun, and Michael Beer. **Uncertainty Analysis of Structural Output with Closed-Form Expression Based on Surrogate Model.** Probabilistic Engineering Mechanics 73 (July 2023): 103482.

ONGOING RESEARCH

Yuanlv Chen, Tangfan Xiahou. **Reliability Analysis of the Control Rod Drive Mechanism Based on Physics-informed Neural Networks.**

Ruihan Xu, Yuanlv Chen, Yiping Lu. **Online Dynamic Mode Decomposition through Debiasing.**

OTHERS

Programming Languages

Familiar: MATLAB, Python

Basic: C, C++, Javascript

Languages

Mandarin Chinese (Native), English (Proficient), Cantonese (intermediate)

Extracurricular Experiences

I play for the football (soccer) team of UESTC's School of Mechanical and Electrical Engineering.

In addition, I am an amateur badminton and billiards player. I am also an enthusiast of literature and history.