XUYANG WU

Xi'an Jiaotong University

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EDUCATION

Xi'an Jiaotong University, School of Mathematics and Statistics Xi'an, China
Master of Applied Statistics, GPA: 3.50/4.0 Sep. 2023 – Jun. 2026
Supervisor: Prof. Jia Liu

University of Electronic Science and Technology of China, School of Mathematical Sciences Chengdu, China
Bachelor of Data Science and Big Data Technology, GPA: 3.87/4.0 Sep. 2019 – Jun. 2023

PUBLICATIONS

[IEEE TAES] **"Chance-Constrained Trajectory Optimization for UAVs with Randomly Moving Obstacles"**
Xuyang Wu (first author), Yu Mei, Weijia Wang, Jia Liu
IEEE Transactions on Aerospace and Electronic Systems, accepted, 2025

[JA] **"Two-sided Chance-constrained Penetration Trajectory Optimization for Unmanned Combat Aerial Vehicle"**
Xuyang Wu (first author), Peiwang Zhang, Jia Liu, Yu Mei, Hao Wang, Weijia Wang
Journal of Aircraft, accepted, 2025

RESEARCH EXPERIENCE

- *Chance-Constrained Trajectory Optimization with Uncertain Obstacle* Sep. 2024-Feb.2026

  - Designed a trajectory optimization model under obstacle uncertainty, reformulating the chance-constrained problem into a mixed-integer linear formulation via sample average approximation;
  - Completed the entire Python implementation independently and was primarily responsible for manuscript drafting and revision.

  Outcome: One paper accepted by *IEEE TAES*.

- *Chance-Constrained Trajectory Optimization with Uncertain Control* Sep. 2023-Jun. 2025

  - Developed the two-sided chance-constrained optimization model and reformulated it into a second-order convex approximation (SOCP);
  - Contributed significantly to the SOCP implementation and authored the majority of the accepted paper.

  Outcome: One paper accepted by *Journal of Aircraft*.

- *DAG-Based Task Scheduling on Heterogeneous Processors* Mar. 2024-May 2025

  - Constructed a two-layer scheduling algorithm based on event scheduling and heterogeneous earliest finish time to address task scheduling in heterogeneous processor systems;
  - Independently completed most of the programming, testing, and technical documentation of the scheduling tool.

  Outcome**:** Executable program.

ADDITIONAL EXPERIENCE

- Research: Scheduling Method Implementation for Discrete-Time Systems Dec. 2020-Dec. 2021
- Database Management Intern: Guizhou-Cloud Big Data Group Co.,Ltd Jul.-Aug. 2021

HONORS AND AWARDS

- "Huawei Cup" Mathematical Contest in Modeling, National Third Prize 2023
- Mathematical Contest in Modeling (MCM), Meritorious Winner 2022

SKILLS

- Languages: English, Chinese
- Programming Languages: Python, MATLAB, C
- Tools: Latex, Gurobi, SPSS