Chun Wang

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Education

University of Michigan *Aug 2023 - May 2025*
M.Sc. in Electrical and Computer Engineering
- GPA: 3.84/4.0

Peking University *Sep 2021 - Jun 2023*
B.Eng. in Software Engineering
- GPA: 3.74/4.0

Wuhan University *Sep 2017 - Jun 2021*
B.Sc. in Information and Computational Science
- GPA: 3.46/4.0

Research Experience

CDF-based Data Generation from Queries with Large Domain Size *Apr 2023 - Present*
First author, paper under writing
- Proposed a fundamentally CDF learning paradigm and a extendable copula network.
- Demonstrate CDF-based approach is better suited for large-scale numerical data applications, it can adaptively capture (scale and stretch) the distribution in sparse spaces.

Contextual Anomaly Detection for AIS Tracks via Directions *Oct 2021 - Mar 2022*
- Efficiently discover noise closed to trajectories by defining contextual directions of spatial coordinates.
- Able to reconnect signal-loss clusters with identical directional derivatives.
- Achieved lower computational complexity on emporal consecutive points instead of entire neighborhood.

Python Remez Approximation Solver [Doc] [Code] *Sep 2019 - Dec 2019*
- Proposed a relaxation step in Remez Exchange Algorithm, search the equioscillation points of error derivative more robustly. Applicable to arbitrary interval length and handle non-smooth functions.
- Shared same precision with MATLAB toolbox for low-degrees (2nd order), extendable to up to 33rd with better error guarantees of 10^{-14}.

Projects

Virtual Tours Mini Program Development *2022*
- A color blindness friendly travel route recommendation software.

Solving Differential Equations with Neural Networks *2020*
- Embed Burgers and Shrodinger equations into the PINN network architecture based on PyTorch

Social Network Analysis: Influence Maximization *2020*
- Reproduced IMRank algorithm on a large directed graph

Honors

- Second Prize (Honorable Mention) of American Mathematical Contest In Modeling (MCM/ICM)
- Third Prize of China Undergraduate Mathematical Contest in Modeling

Technologies

Languages: Python (proficient), MATLAB, PHP, C++, Julia, Java, SQL, JavaScript