

Yifei Xu

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EDUCATION

New York University

Ph.D. in Electrical Engineering

Advisor: Prof. Yuzhang Lin;

Key courses: Deep Learning, Electrical Transmission and Distribution Systems .

Brooklyn, NY

01/2025 – Present

University of California, Berkeley

M.Eng. in Industrial Engineering and Operations Research

GPA: 3.83 / 4.00; Advisor: Prof. Scott Moura;

Key courses: Optimization Analytics, Risk Modeling and Simulation, Data Analytics.

Berkeley, CA

08/2022 – 05/2023

Tsinghua University

M.Sc. in Electrical Engineering (Part of a 3-year Dual Master's Program with UC Berkeley)

GPA: 3.92 / 4.00; Advisor: Prof. Ye Guo;

Key courses: Optimization Algorithms in Power Systems, Computation Methods for Power Systems, Operations Research.

Shenzhen, China

09/2016 – 06/2020

North China Electric Power University

B.Eng. (with honor) in Electrical Engineering

GPA: 3.90 / 4.00;

Key courses: Power System Economics, Power System Analysis, Energy Management Systems.

Beijing, China

09/2016 – 06/2020

PUBLICATIONS

- Ye Guo (advisor), **Yifei Xu**, Hongbin Sun and Boming Zhang. Multi-time Interval Forecasting-Aided State Estimation Incorporating Phasor Measurements for Power Systems with Renewable Energy Sources. *CSEE Journal of Power and Energy Systems*, [Early Access in IEEE Xplore](#).
- **Yifei Xu**, Ye Guo, Wenjun Tang, Hongbin Sun, et al. Smart Meters Integration in Distribution System State Estimation with Collaborative Filtering and Deep Gaussian Process. *IFAC World Congress 2023*.

INDUSTRIAL EXPERIENCES

Siemens USA

Power System Software Engineer, Smart Infrastructure Organization

Responsibilities: Develop and implement complex technical assignments related to Energy Market Management System software applications.

Minnetonka, MN

02/2024 – 03/2024

State Grid Corporation of China

Test Engineer, Hebei Electric Power Research Institute

Responsibilities: Test the transient performance of renewable energy source inverters within electrical power systems.

Shijiazhuang, China

07/2023 – 05/2024

RESEARCH EXPERIENCES

Energy, Controls & Applications Lab, UC Berkeley

Electric Vehicle Charging Station Optimization Pilot

Berkeley, CA

09/2022 – 05/2023

- Developed an optimization framework for electric vehicle charging stations, incorporating dynamic pricing and charge scheduling with a focus on user decision-making behavior.
- Used the Block Coordinate Descent algorithm to solve the multi-convex problem using cvxpy and Mosek in Python.
- Led an interdisciplinary team of four students to develop the EV station digital twin on Github (See Reference).

Smart Grid and Renewable Energy Laboratory, Tsinghua University

State Estimation under Conditions of Multi-source Asynchronous Measurements

Shenzhen, China

09/2020 – 08/2022

- Designed a method for real-time state monitoring in energy distribution networks subject to variable conditions from renewable sources, achieving higher estimation accuracy with manageable computational overhead.
- Developed a spatial-temporal graph-based approach for identifying and correcting data anomalies during state estimation.
- Enhanced estimation accuracy by predicting missing data from correlated nodes using collaborative filtering techniques.