HANYUE LI

College Station, TX | hanyueli@tamu.edu

EDUCATION

Texas A&M University (TAMU), College Station, TX GPA 4.0/4.0 **Aug. 2017 – Present**
Ph.D. Candidate for Electrical Engineering
Carnegie Mellon University (CMU), Pittsburgh, PA **Aug. 2017**
Master of Science in Electrical and Computer Engineering QPA 4.0/4.0
Illinois Institute of Technology (IIT), Chicago, IL **May. 2016**
Bachelor of Science in Electrical Engineering GPA 4.0/4.0 (Summa Cum Laude)

SKILLS

Programming: Python, Java, R, C
Software: PowerWorld, MATLAB, PSSE, CCS, LTSpice
Language: Mandarin, English

RESEARCH PROJECTS

ARPA-E Synthetic Electric Grid Project **College Station, TX Aug. 2017**
Performing studies on the synthetic electric grid that statically and functionally similar to the actual electric grids, which could be used as public test cases.
- Developed synthetic load modeling method to create realistic bus level hourly load for one year in 2000 bus Texas case
- Implementing Unit Commitment to create synthetic scenarios with hourly varying load and renewable energy generation

Power System Market Optimization **Pittsburgh, PA May. 2017**
Investigated the computational ability of different power system market problem solving methods, and the compatibility of different power system commercial software.
- Formulated the Economic Dispatch and Unit Commitment problem considering generator thermal, operating reserve, transmission capability and environmental constraints
- Performed ACOPF in two software for compatibility comparison (PowerWorld, PSSE and MATPOWER)
- Compared the solving ability of Branch & Bound algorithm and multiple integer linear programming with respect to UC problem
- Compared the solving ability of genetic algorithm and particle swarm optimization on security-constrained economic dispatch

Short Term Load Forecasting **Chicago, IL May. 2016**
Developed short term load forecasting model based on data science and machine learning algorithms for New England area using NE-ISO data.
- Developed the load forecasting model using convolutional neural networks to establish relation between time and weather input and load output
- Improved the model accuracy by the classifying seasonal and locational demand profiles
- Performed the sensitivity analysis to quantify of the effects of different input

PROFESSIONAL EXPERIENCE

ISO New England **Holyoke, MA**
Summer Intern Aug. 2018
- Analyzed ISO New England Real Time Unit Commitment (RTUC) and Unit Dispatch System (UDS) data
- Developed a machine learning tool to identify daily load peak to help operators to commit generators more economically

Texas A&M University **College Station, TX**
Research Assistant Sept. 2017
- ARPA-E Synthetic Electric Grid Project

Carnegie Mellon University **Pittsburgh, PA**
Teaching Assistant for Fundamentals of Electric Power System (18-372) Dec.2016
- Held recitation lectures and exam review sessions
- Evaluated homework, tests, and held office hours

ACTIVITIES/ORGANIZATIONS

IEEE Texas Power and Energy Conference 2019 Co-director	College Station, TX	Mar. 2018
IEEE Texas Power and Energy Conference 2018 Event Coordinator	College Station, TX	Sept. 2017
Chicago Area Undergraduate Research Symposium	Chicago, IL	Apr. 2016
IEEE International Future Energy Challenge Team Leader	Long Beach, CA	Apr. 2016
IEEE PES Student Member	Chicago, IL	Sep. 2014