Tony ElHabr

- *Contact:* anthonyelhabr@gmail.com

Education

B.S. Electrical Engineering, May 2016, The University of Texas at Austin

- *Primary Technical Core:* Energy Systems and Renewable Energy, GPA: 3.85/4.
- *Honors:* Engineering Honors Program Member, Virginia & Ernest Cockrell, Jr. Scholarship in Engineering Recipient
- *Societies:* Officer/Member of IEEE Power and Energy Society UT Student Branch

Skills & Abilities

SOFTWARE

- *Expert:* R, VBA (for Excel), SQL (Oracle), Windows OS, Microsoft Office Suite
- *Intermediate:* python, MATLAB, PSSE, PowerWorld, HTML/CSS, git, command line
- *Beginner:* SAS, JavaScript, C/C++, x86 assembly language

Experience

MARKET OPERATIONS ENGINEER II, CONGESTION REVENUE RIGHTS (CRR) | ERCOT | 6/2017 - present day

- Prepare data for CRR auctions (approximately twice a month), and validate and analyze results.
- Perform ad-hoc studies of CRR and day-ahead market (DAM) trends.

CO-FOUNDER/CO-LEADER, ERCOT DATA SCIENCE GROUP | ERCOT | 9/2017 - present day

- Help conduct monthly meetings of an internal group that discusses data science concepts and practices implementation.

ENGINEERING DEVELOPMENT PROGRAM (EDP) ENGINEER | ERCOT | 7/2016 - 5/2017

- Completed 12-month program to provide entry-level engineers with skills for becoming successful in power industry.

Projects:

- *NOX Emissions Sensitivity Analysis:* Evaluated impact of varying NOX emission allowance costs on generation dispatch and compared relative influence of NOX and CO_2 allowance costs.
- *5 - Minute Resolution Wind Forecast Analysis:* Evaluated proposed auto-regressive (AR) model for Multi-Interval Real- Time Market (MIRTM) and analyzed accuracy of third-party vendor's forecasts.
- *Daily Market Summary Template Improvements:* Revised existing real-time (RT) and day-ahead market-(DAM) SQL queries to facilitate execution on separate database and re-factored VBA code to improve readability and consistency.

INSTRUMENTATION ENGINEERING INTERN | EXXONMOBIL | 05/2015 - 08/2015

- Created Cause & Effect Matrix for boiler safety system using software for Programmable Logic Controllers (PLCs).
- Developed plan to upgrade faulty fire detection system for turbo-expander/re-compressor system.

MONITORING & DIAGNOSTICS SYSTEMS SUPPORT INTERN | LUMINANT | 05/2014 - 08/2014

- Improved equipment reliability displays for real time system operations using OSIsoft PI software.
- Developed new PI Asset Framework data archiving structure for equipment tags.

ELECTRIC DISTRIBUTION PLANNING & COMPUTER SUPPORT CO-OP | CENTERPOINT| 01/2014 - 05/

- Completed 2016 Distribution Development Plan (DDP) for Hidden Valley substation using CYME software.
- Created street maps for CYME models using Geographical Information System (GIS) software.
- Updated peak-loading spreadsheets to improve projections of future load growth and expenses.