

Eran Schweitzer

Curriculum Vitæ

2343 W Main St. #1166

Mesa, AZ 85201

☎ (971) 404-8251

✉ eran.schweitzer@asu.edu

📁 sine.fulton.asu.edu/~eran



Education

- Sep. 2015– Present **Ph.D. Electrical Engineering**, *Arizona State University*, Tempe, AZ.
Signal Information Network and Energy (SINE) Lab, Director Prof. Anna Scaglione
- Oct. 2013– Sep. 2015 **RWTH Aachen University**, *MSc. Electrical Power Engineering*, Aachen, Germany.
Thesis: *Statistics-based Generation Algorithm for Distribution Grid Topologies*
- Sep. 2010–Jun. 2013 **Portland State University**, *Post Baccalaureate Electrical Engineering*, Portland, OR.
- Aug. 2004–May. 2007 **University of Southern California**, *BA Music (Guitar)*, Los Angeles, CA, *Magna Cum Laude*.

Professional Experience

- Jun. 2017– Aug. 2017 **Pacific Northwest National Lab (PNNL)**, *Ph.D Intern*, Richland, WA.
Work in the Electricity Infrastructure Integration group on co-simulation of distribution and transmission systems.
- May 2015– Sep. 2015 **Amprion (German TSO)**, *Intern*, Brauweiler, Germany.
Energy Market and System Balancing Department. Optimizations, calculations, and assessments with regard to balancing power and renewable energy forecasts.
- Nov. 2013– Apr. 2015 **Institut Für Hochspannungstechnik (IFHT)**, *RWTH, Wissenschaftliche Hilfskraft (student work)*, Aachen, Germany.
Implementation and adaptation of a mixed integer unit commitment optimization algorithm
- Jan. 2015– Mar. 2015 **Institute for Communication Technologies and Embedded Systems (ICE)**, *RWTH, Wissenschaftliche Hilfskraft (student work)*, Aachen, Germany.
L^AT_EX problem/solution sets for lectures: Algorithm Design of Digital Receivers, and Estimation & Detection Theory
- Oct. 2013–Nov. 2014 **Institut Für Elektrische Maschinen (IEM)**, *RWTH, Wissenschaftliche Hilfskraft (student work)*, Aachen, Germany.
Implementation of a magnetic hysteresis model in the institutes finite element solver
- Jun. 2012–Jun. 2013 **Northwest Electromagnetics and Acoustics Research Laboratory (NEAR-Lab)**, *Student Researcher*, Portland, OR.
Active sonar fish-detection research at Portland State University.
- 2006–2013 **Guitar Instructor**
- 2006–2013 **Private Teaching Studio** *Portland, OR & Los Angeles, CA* Students ages 5–50+
 - 2009–2013 **Rose City Music Academy** *Portland, OR* Grade school aged students
 - 2009–2011 **Music Lessons Northwest** *Portland, OR* Student ages 3–35+

Software Proficiency

MATLAB	Some examples: development for MATPOWER, various graph theory algorithms, linear power flow implementations, mixed integer optimization, Beamforming, TDOA
Python	Gurobi optimization, graph algorithms, statistical analysis and fitting routines
Git	Github page: https://github.com/eranschweitzer
SQL	Created two PostgreSQL databases to query and analyze data obtained from utilities
VBA	Several optimizations and forms built as Excel macros for Amprion
LTSpice	Transistor level design of op-amp and emitter coupled oscillator
Additional software used	PSLF, Pi system from OsiSoft, Power World Simulator, Labview, FEMM, HFSS, MS Office Suite, Adobe Suite, Logic

Languages

English	Fluent	<i>language of daily life since age 10</i>
Hebrew	Fluent	<i>native speaker</i>
German	Fluent	<i>finished B2 level</i>
Spanish	Intermediate	<i>basic conversation</i>

Honors & Awards

2018	IEEE PES General Meeting Best Paper Award
2017	IEEE Phoenix Section Student Award
2015	JARA Best Master Award

Publications

Journals

E. Schweitzer and A. Scaglione, "A mathematical programming solution for automatic generation of synthetic power flow cases," *IEEE Transactions on Power Systems*, 2018. DOI: 10.1109/TPWRS.2018.2863266.

E. Schweitzer, A. Scaglione, A. Monti, and G. A. Pagani, "Automated generation algorithm for synthetic medium voltage radial distribution systems," *IEEE Journal on Emerging and Selected Topics In Circuits and Systems*, 2017.

A. B. Birchfield, E. Schweitzer, M. H. Athari, T. Xu, T. J. Overbye, A. Scaglione, and Z. Wang, "A metric-based validation process to assess the realism of synthetic power grids," *Energies*, vol. 10, no. 8, 2017, ISSN: 1996-1073. DOI: 10.3390/en10081233.

Conferences

E. Schweitzer, J. Hansen, and J. Fuller, "Transmission and distribution co-simulation with possible distribution loops," in *2018 IEEE Power and Energy Society General Meeting*, 2018.

E. Schweitzer, T. Xu, A. B. Birchfield, A. Scaglione, T. J. Overbye, R. Thomas, and Z. Wang, "Towards operational validation: Mapping power system inputs to operating conditions," in *Proceedings of the 20th Power Systems Computation Conference*, 2018.

E. Schweitzer, A. Scaglione, and K. Hedman, "Assignment of electrical properties to power grid topologies," in *Proceedings of the 51st Hawaii International Conference on System Sciences*, 2018.

E. Schweitzer, A. Scaglione, and R. Thomas, "The validation of synthetic power system cases," in *IREP'2017 Symposium*, 2017.

E. Schweitzer, A. Scaglione, R. Thomas, and T. Overbye, "Analysis of the coupling between power system topology and operating condition for synthetic test case validation," in *2016 Grid of the Future Symposium*, CIGRE US National Committee, 2016.

E. Schweitzer, K. Togawa, T. Schloesser, and A. Monti, "A matlab gui for the generation of distribution grid models," in *ETG-Fachbericht-International ETG Congress 2015*, VDE VERLAG GmbH, 2015.