

Charles Simchick, PE, LEED-AP

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Skills & Expertise

data engineering & data science
AWS, Kafka, KSQL, Flask, Dash
python, SQL, bash, FORTRAN

program & project management
product development
tmux, vim, git, docker

energy efficiency & sustainability
mechanical engineering

Professional Experience

INSIGHT DATA SCIENCE | Seattle, WA

Data Engineering Fellow (2019 -)

- Developed real-time job dispatch application using AWS, Kafka, KSQL, and Dash to optimize utilization of distributed resources.

SELECT ENGINEERING SERVICES | West Point, NY; Layton, UT; Seattle, WA

Utility Sustainability Project Manager (2015 - 2018)

- Developed building submetering network and data infrastructure to support energy control algorithms and behavioral management programs.
- Maintained campus-wide networked energy metering network and database comprising 148 smart electric meters to monitor 21 MW coincident demand across 130 buildings.
- Analyzed interval meter data for campus electrical energy profile, identifying potential for 3 MW baseload reduction equivalent to \$1.5M/yr savings with low-cost implementation of behavioral program.

THE DAYLIGHT SAVINGS COMPANY | Goshen, NY

Senior Energy Engineer (2010 - 2014)

- Developed proprietary software application for analysis and modeling of facility energy consumption profile, including calibration and customized report generation.
- Coordinated technical staff in the execution of energy benchmarking, energy assessments, and retro-commissioning efforts for commercial, industrial, and large multi-family facilities.
- Managed project portfolio consisting of over 14 Msf in 250 commercial, industrial, and multi-family facilities in New York City.

OCULUS ENGINEERING SOLUTIONS | New York, NY

Principal Consultant (2009 - 2015)

- Prepared engineering analyses and economic feasibility studies for facility energy reduction projects, including chiller upgrades and combined heat & power.
- Conducted on-site energy audits and systems retro-commissioning for commercial and institutional facilities.
- Performed utility billing analysis for commercial tenant energy metering issue. Identified overcharge of ~\$1M.

Education & Training

MASTERS CERTIFICATE, PROGRAM & PROJECT MANAGEMENT | UC Santa Cruz Extension

MASTER OF SCIENCE, MECHANICAL ENGINEERING | Pennsylvania State University

BACHELOR OF SCIENCE, MECHANICAL ENGINEERING | Pennsylvania State University
