

Hyunseok (Peter) Jang

Informal CV

Email hspeterj@gmail.com | Website hsjang.com | LinkedIn [hyunseokjang](https://www.linkedin.com/in/hyunseokjang) | Google Scholar [Link](#)

WORK EXPERIENCE

Product Engineer (Co-op) May 2022 – Current
Survallent (Product Team) *Brampton, Canada*

Data Scientist & Researcher (Co-op) Jan 2021 – Apr 2022
Paran Energy (Data Team) *Seongnam, South Korea*

During early pandemic, I flew to South Korea with a visa sponsorship and research funding after my internship offers in NA got rescinded. There, I worked on several machine learning and optimization projects for demand response using time-series data (electricity demand, consumption, and generation). I developed simulation, clustering, forecasting, online learning, and recommendation systems based on time-series data. Also, I had the opportunity to work on national research projects as a researcher and mini projects as a product owner.

Machine Learning Engineer June 2020 – Nov 2020
Oslyn.io (AI Team) *Mississauga, Canada*

I worked on applying seq2seq deep learning models to labeled audio data for on-device musical chord prediction using TensorFlow Lite and AWS SageMaker under tech leads.

Data Analyst (R&D) Intern Jun 2019 – Aug 2019
KMDATA, (R&D Center, Embedded Division) *Seoul, South Korea*

I performed software and hardware QA tests for intelligent electric devices (IED) using real-time voltage data. Gained lab experience with three-phase power systems, feeder remote terminal units (RTU), under-voltage trip modules (UVT), and load break switch controllers (LBS). On the side, I assisted in translation, domestic and international sales, factory acceptance tests (FAT), and on-site commissioning for the IEDs.

RESEARCH EXPERIENCE

Research

Development of Demonstration Zone for New Electricity Service Model Mar 2021 - Apr 2022
Researcher | Paran Energy / SK Telecom / Hyundai Motor Company + 9 others (Consortium) *Seoul, South Korea*

- Research funded by the Ministry of Trade, Industry and Energy (*Grant number: 20194310100030*)

Development and Trial of New Business Model and Service Using Electric-Power Big-data Apr 2021 – Dec 2021
Researcher | Paran Energy / Electronics and Telecommunications Research Institute (ETRI) *Gwangju, South Korea*

- Research funded by the Ministry of Trade, Industry and Energy (*Grant number: 20181210301570*)
- Resulted in a second-authored IEEE paper and pending patent in the Korean Intellectual Property Office

Study on data-driven methods to enhance the participation of demand response using electricity data Nov 2020 - Jan 2022
Researcher | Paran Energy / Space Smart Lab, Dept. of Architectural Engineering, Dankook University *Yongin, South Korea*

- Research funded by the Ministry of Trade, Industry and Energy (*Grant number: 20209710100080*)

Planning and Proposal Writing (Accepted)

Jeju Apartment Smart Energy Platform Project for 2030 Carbon Free Island (CFI) Feb 2022 – Apr 2022
Paran Energy / SK Telecom / Jeju Island *South Korea*

- Co-funded project with SK Telecom and Jeju Special Self-Governing Province

Development and demonstration of a sustainable resident-participatory energy self-sufficient microgrid Nov 2021 – Apr 2022
Paran Energy / Gridwiz *South Korea*

- Research funded by the Ministry of Trade, Industry and Energy (*Grant number: 20213030160180*)

EDUCATION

University of Toronto Sep 2019 - Current
Honours Bachelor of Science *Toronto, Canada*

- Major:** Mathematics, Physics and Astrophysics
- Minor:** Statistics

PUBLICATIONS

1. Hyunyong Lee, **Hyunseok Jang**, Seung-Hun Oh, Nac-Woo Kim, Seongcheol Kim, and Byung-Tak Lee. Novel single group-based indirect customer baseline load calculation method for residential demand response. *IEEE Access*, 9:140881–140895, 2021

AWARDS AND RECOGNITION

Minister's Award

Ministry of Trade, Industry, and Energy

Nov 2021

Seoul, South Korea

- Recognized for outstanding contribution and performance at the KEPCO EDACOM 2021
- Awarded by Minister Moon Sung-wook

KEPCO Electric Data AI Competition (EDACOM) 2021

Nov 2021

Grand Prize (1st place out of 100 companies)

Seoul, South Korea

- Organizers and referees: KEPCO, Korea Power Exchange, Graduate School of Data Science at Seoul National University, Gwangju Institute of Science and Technology, Korea Electrical Manufacturers Association
- Proposed a new customer baseline load calculation method using Online Learning
- Received researcher acceleration fund (KRW 5,000,000 \approx CAD \$4,900)

Entrance Scholarship (Undergraduate)

University of Toronto

Sep 2019

Toronto, Canada

TALKS

KEPCO Bitgaram International Exposition of Electric Power Technology (BIXPO) 2021

Nov 2021

Hosted by Korea Electric Power Corporation (KEPCO)

Gwangju, South Korea

- Biggest power technology exposition in Asia
- Invited oral presentation on the award-winning project from KEPCO EDACOM 2021