Kim, Jongwon

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Jongwon Kim (Linked In)

EDUCATION

Ph.D. in Computational Science (in depth with Artificial Intelligence) Mar 2019 - Present
Seoul National University, South Korea

- Research Topics: Human performance evaluation for better health outcomes using video understanding AI
- Advisor: Prof. Sang-Mook Lee

Master of Science in Geophysics Mar 2000 - Aug 2003
Seoul National University, South Korea

- Research Topics: Crustal structure, elastic thickness and thermal modeling of the Ulleung basin, East Sea, Korea
- Advisor: Prof. Chang-Eob Baag, Prof. Sang-Mook Lee

Bachelor of Science in Earth and Environmental Sciences Mar 1995 - Feb 1999
Seoul National University, South Korea

- Awarded academic excellent scholarship based on GPA

PROFESSIONAL EXPERIENCE SUMMARY

Advanced Artificial Intelligence (AI) specialist with a focus on Vision AI, and skilled in the development of AI models and their practical applications in the field of industrial artificial intelligence. Demonstrated expertise in understanding and implementing the latest research, particularly in the area of complex deep learning model training and algorithmic enhancements. Proficient in performance optimization using Vision, Transformer-based language models, and Reinforcement Learning algorithms, with a strong background in developing a variety of AI models using tools such as Pytorch, Keras, and Scikit-learn, and applying them effectively to real-world projects. With over 20 years of experience as a geophysicist in the oil and gas energy industry, I possess exceptional insights into integrating AI technology within the energy sector.

I. **Nell Hodgson Woodruff School of Nursing, Emory University**
Atlanta, Unites States Apr 2024 - present

- Senior Research Data/Informatics Specialist
  - Currently involved in various interdisciplinary projects to understand human behaviors and enhance human performance for better health outcomes using AI applications, such as 'AI-SHAPE' project which has innovative approaches to nursing practice assessment with integration of Vision AI technology.

II. **ISciLab (Artificial Intelligence Science Research Lab)**
Seoul, South Korea Aug 2020 - Feb 2024

- Principal Researcher
  - ‘AI prediction Big-Data Platform for the Hydrogen Pilot City’ project (KEPCO KDN)
  - ‘Developing the forest fire detection model to protect the electric transmission and distribution facilities’ project (KEPCO)
  - ‘AI Convergence Public Safety Securing’ project (NIPA)
  - ‘Developing the AI search engine using unstructured documents’ project (Woori Bank)
  - ‘Big data analysis to discover unreasonable laws’ project (Ministry of Public Administration, South Korea)
  - ‘Development of high-efficiency operation technology through digitalization of electric furnace steelmaking process’ project (Ministry of Energy, South Korea)
  - 'Identifying large-scale CCS geological storage for EGR in Canada and development of overseas CO2 reduction model' project (the Ministry of Energy, South Korea)

III. **Energy Holdings Group**
Seoul, South Korea Dec 2017 - Jun 2020

- Head Manager oh R&D
  - ‘Development of digital oil field system establishment and commercialization in US/Canada’ project, (Ministry of Energy, South Korea)
  - ‘Development of major shale gas play evaluation methods for the West Canadian Basin’ project (Ministry of Energy, South Korea)
  - ‘Technical and economic evaluation of shale oil/gas fields located in US and Canada’

IV. **Korea Gas Corporation (KOGAS) Research Institute**
Seoul, South Korea Dec 2016 - Nov 2017

- Senior Geoscientist
  - ‘Exploration Technologies and an On-site Verification to Enhance the Fracturing Efficiency of a Shale Gas’ project (Ministry of Energy, South Korea)

V. Petronas Carigali sdn
Kuala Lumpur, Malaysia Dec 2014 - Mar 2016

- Senior Geoscientist
  - ‘Near Field Exploitation located in offshore of Malaysia’

VI. Korea Gas Corporation (KOGAS) AKKAS B.V.
Dubai, UAE Nov 2011 - Nov 2014

- Senior Reservoir Geophysicist
  - ‘Field Development Project of the Akkas gas field located in Western Desert of Iraq’

VII. Korea Gas Corporation (KOGAS).
Seoul, South Korea Nov 2006 - Nov 2011

- Senior Geophysicist Jan 2009 - Nov 2011

- Performed Technical evaluation of the Myanmar A1-A3 feilds operated by DAEWOO, JPDA 06-102 operated by PETRONAS, Indonesia Krueng-Mane and Mozambique Area 4 operated by ENI as exploration geoscientist.
- Conducted Seismic survey design, tender evaluation and QC for 2D seismic acquisition of the Uzunkui onshore block in Uzbekistan.
- Executed Technical Due Diligence by visiting data-rooms located in Malaysia, Vietnam, Australia, Papua New Guinea, Alaska, Nigeria, Iraq etc.

▪ Geophysicist Nov 2006 - Dec 2008
- Conducted technical evaluations for new venture projects.

VIII. Samsung Techwin
Seoul, South Korea Feb 2004 - Oct 2006

▪ Optical Engineer for Optical Design
- Successfully designed and manufactured 2M and 5M mobile phone camera lenses

IX. Korea Institute of Ocean Science and Technology
Seoul, South Korea Feb 1999 - Oct 2003

▪ Geophysicist in Deep-sea Resources Center
- Researched on the tectonic setting and basin flexure and thermal subsidence modeling of the Ulleung Basin, East Sea, Korea
- Performed Gravity data analysis and Seabed mapping for Deep-sea Resources

KEY PROFESSIONAL RESEARCH PROJECT DETAILS

AI prediction Big-Data platform for the hydrogen pilot city
Granted by Korea Electric Power Corporation Knowledge, Data & Network Co., Ltd. (KEPCO KDN)
Jan 2021 - Jan 2023

- Pioneered the development of a comprehensive big data platform, specifically for the hydrogen pilot cities of the Republic of Korea, incorporating an innovative AI-enabled system architecture that facilitated seamless data integration from hydrogen charging stations, the Korea Meteorological Administration, and toll gate traffic data, significantly enhancing the predictive analysis of past hydrogen consumption.
- Led the advanced time series modeling for hydrogen usage at charging stations, employing a multi-faceted approach that:
  - Differentiated between commercial and personal vehicle data to account for variations in hydrogen consumption and recharge times.
  - Performed in-depth trend analyses, accounting for vehicle types and seasonality factors to normalize stochastic variables, resulting in highly accurate monthly hydrogen usage prediction models, benchmarked using relative error histograms for model evaluation.
  - Achieved superior predictive performance over models utilizing the Facebook Prophet library.

- Directed the development and implementation of a fuel cell power generation abnormality detection system for peak usage times, utilizing Scalable Unsupervised Outlier Detection (SUOD) methodologies, which streamlined the process by:
    - Dimensionality reduction of high-dimensional datasets.
    - Optimization of complex time series models.
    - Enhancement of distributed system efficiency.
- Engineered and integrated a suite of SUOD models for robust anomaly detection, including Histogram-based Outlier Detection, Principal Component Analysis Outlier Detector, One-class SVM detector, and Isolation Forest Outlier Detectors with varied estimator counts, ensuring a comprehensive anomaly detection framework.
- Successfully deployed an end-to-end hydrogen charging vehicle waiting time prediction system that:
    - Processed real-time imagery from security cameras at charging stations to identify queuing vehicles.
    - Employed object detection models to classify vehicle types within the queue.
    - Predicted the waiting time at charging stations based on the queue length and the differentiated average charging times across vehicle types.
    - Maintained model performance through a bespoke model management system.
    - Provided a dynamic visualization dashboard that delivered real-time enriched data insights at the hydrogen charging stations.

Developing the forest fire detection model to protect the electric transmission and distribution facilities

Granted by Korea Electric Power Corporation (KEPCO) Aug 2021 - Jan 2022

- Innovated a state-of-the-art forest fire detection system for KEPCO, significantly reducing false alarms by refining the model previously established by a previous contributor.
- Designed and implemented a holistic system architecture for forest fire detection, encompassing:
    - Configuration of a stream receiver to aggregate live video streams from IP cameras strategically installed in forested regions, facilitating real-time monitoring and image extraction for subsequent processing.
    - Deployment of a suite of six cutting-edge computer vision (CV) models including EfficientNet, ResNet, Yolov5, FireNet, EfficientDet, and RetinaNet on on-premises servers, leveraging their individual classification and detection strengths.
    - Integration and ensemble of all six models, ensuring local log storage and the transmission of detection outputs to cloud environments for advanced analysis.
- Enhanced detection accuracy through an innovative image sequence voting algorithm, addressing the variable performance of existing models across diverse environmental conditions and thereby constructing a model ensemble with superior and stable performance through this technique.
- Applied hamming distance evaluation in the ensemble method to optimally select constituent models for the fire detection system, ensuring a strategic approach to model integration.
- Achieved significant performance enhancements in classification models, with EfficientNet, ResNet, and FireNet improving by 19%, 99%, and 25% respectively, culminating in an 83% increase in the accuracy of the final voting outcome.

- Successfully deployed the system across KEPCO's transmission stations, with the updated model exhibiting a dramatic reduction in false positives by over 99% compared to the legacy system.
- Directed the development of advanced AI models specifically tailored to forest fire detection, contributing to critical infrastructure protection and risk mitigation efforts.

AI Convergence Public Safety Securing Project
Granted by National IT Industry Promotion Agency, South Korea Apr 2021 - Dec 2021

- Orchestrated the development and deployment of an integrated AI solution for law enforcement agencies, advanced the search for missing individuals through advanced multimodal video search technology.
- Conceived and executed a real-time identification system capable of locating specific individuals from CCTV footage, utilizing a combination of physical attributes such as attire, hairstyle, gender, and body shape, by:
    - Harnessing video streams from CCTV networks.
    - Employing the YOLOv4 model for person detection and the InceptionV3 model for feature extraction.
    - Constructing a dynamic indexing system for attributes, enabling the calculation of similarity scores between searched attributes and those detected in video feeds.
- Pioneered a multi-camera tracking methodology to monitor individuals across various surveillance points, which included:
    - Utilizing YOLOv4 model for precise individual detection and generating image embeddings for indexing.
    - Implementing sophisticated image search algorithms to track the movement trajectory of individuals across different CCTV feeds, arranging a chronological timeline of their whereabouts.
    - Re-examining CCTVs that initially missed the individual in the timeline for a comprehensive search coverage.
    - Employing predictive analytics to ascertain the likely location and movement pattern of the target.
    - Facilitating reidentification processes to maintain continuous tracking of the individual.

Developing the AI search engine using unstructured documents
Granted by Woori Bank (One of the big major bank in South Korea) Feb 2023 - Oct 2023

- Led the AI component of Woori Bank’s project focused on the assetization of unstructured data and the development of an AI-based search engine, serving as the Project Lead (PL).
- Pioneered the development of an AI searcher by executing document segmentation in various formats, followed by encoding and model learning using the Bert model and DPR (Dense Passage Retrieval) approach, demonstrating advanced technical proficiency.
- Enhanced search efficiency and user experience by integrating AI search results with traditional keyword search outputs, and implemented ReRanking for personalized search results, showcasing a blend of technical innovation and user-centric design.

- Spearheaded the digital transformation of document data and led the training of sophisticated machine learning models.
- Collaborated effectively with high-profile clients, including Woori Bank and SK C&C, demonstrating strong client management and project collaboration skills.
- Innovated a machine learning-based re-ranking algorithm to tailor search engine results to user-specific contexts, significantly improving search relevance and user experience.
- Implemented and monitored key performance metrics, such as R10 values and recall rates, to ensure the search model's precision in delivering top 10 relevant responses.
- Identified and resolved complex backend re-ranking issues, substantially enhancing search result accuracy through algorithm optimization.
- Employed advanced retrieval technologies to streamline search operations, contributing to more efficient information retrieval processes.

Big data analysis to discover unreasonable laws

Granted by Ministry of Public Administration, South Korea Jun 2022 - Feb 2023

- Orchestrated the extraction and NLP analysis of civil complaint sentences from large-scale news datasets, utilizing advanced linguistic algorithms to uncover public grievances against laws and regulations.
- Pioneered the development of a Civil Complaint Sentence Extraction Model, leveraging the powerful KoBERT framework for sentence embedding to measure sentence similarity, thus accurately identifying and isolating expressions of civil discontent within textual data.
- Implemented a data-driven approach to rank news articles containing a high volume of civil complaint sentences, organizing them annually and by specific laws to systematically quantify and rank laws based on public inconvenience.
- Innovated in the field of text analytics by discovering multi-dimensional issue keywords from civil complaint narratives, extending beyond the conventional bi-gram analysis, and subsequently developed sophisticated word cloud visualization tools to represent and communicate the prevalence and significance of these issues.
- Spearheaded the collection of legal data assets, including current law regulations, legal terminology dictionaries, abbreviations, and keywords, as well as aggregating big kinds news data from news and social media sources relevant to specific laws.
- Led the data preprocessing efforts by identifying complaint-related keywords within legal news data, and executed meticulous labeling of suspected complaint sentences, determining their relevance to actual complaints.
- Developed sophisticated AI models for extracting complaint-related sentences using deep learning techniques such as KoBert for sentence embedding and similarity measures to accurately identify the context of public grievances.
- Engineered a legal issue tracking model capable of mining issues from complaint texts and innovated an algorithm for the extraction of issue keywords extending beyond bi-grams, showcasing advanced analytical capabilities.
- Visualized the hierarchy of laws based on the frequency of public discomfort reported in the news, presented dynamically over time and by quarters, offering insightful trend analysis and strategic decision-making tools.
- Created visualizations of legal issue trends to illustrate the evolving landscape of public concerns related to various laws, demonstrating the ability to translate complex data into actionable intelligence.

Development of high-efficiency operation technology through digitalization of electric furnace steelmaking process

Granted by Ministry of Energy, South Korea Apr 2022 - Feb 2024

- Initiated a pivotal quality enhancement initiative by cataloging comprehensive steel scrap data, stratified by grade, to refine the steelmaking raw material selection process.
- Led the pioneering development of advanced operation technologies aimed at the digital transformation of the electric furnace steelmaking process, elevating the existing electric furnace methodologies through strategic digital integration.
- Directed the creation and continuous enhancement of a cutting-edge AI model dedicated to the precision grading of steel scrap, integrating machine learning algorithms with image analysis to improve materials categorization.
- Executed a groundbreaking project to establish a component-based steel scrap database, integrating it with artificial intelligence to optimize a low-carbon and low-energy steelmaking operation, thereby setting new industry standards in sustainable manufacturing practices.

Identifying Large-Scale CCS Geological Storage for EGR in Canada and Developing an Overseas CO2 Reduction Model

Granted by Ministry of Energy, South Korea May 2022 - Feb 2024

- Developed a structured approach for sourcing and processing data to enable advanced artificial intelligence applications, focusing on CCS geological storage.
- Spearheaded the creation of an analysis module and execution pipeline, integrating artificial intelligence algorithms for evaluating CCS geological storage.
- Utilized a production prediction model to estimate CO2 storage capacities through the application of AI algorithms and conversion factors specific to CO2 storage volumes.
- Led the design and development of a user-friendly system, including UI/UX for data visualization, and successfully completed a prototype of the CO2 Storage Prediction System.
- Executed the selection of evaluation criteria and formulated methods for assessing the viability of the shale gas EGR-CCS project in Canada.
- Acquired an understanding of both domestic and international policies and engaged in activities related to the commercialization of the Canadian shale gas EGR-CCS project.

Development of digital oil field system establishment and commercialization technology for small and medium-sized onshore oil and gas fields

Granted by Ministry of Energy, South Korea Dec 2017 - Jun 2020

- Championed the comprehensive management of research and development initiatives as a leading institution for Digital Oil Field (DOF) systems, steering the project towards meeting key strategic goals in the energy sector.
- Innovated a predictive maintenance artificial intelligence algorithm by harnessing sensor data from oil field operations, achieving remarkable accuracy and recall rates exceeding 90%, which significantly enhanced operational reliability and reduced unscheduled downtime.
- Delivered compelling presentations of research findings at prestigious domestic and international academic conferences, earning recognition as an exemplary research project by the Energy Technology Evaluation and Planning authority.

- Conducted advanced research on digital oil field systems, addressing the heterogeneity of shale resources and the limitations of simulation-based forecasts by applying machine learning algorithms for enhanced predictive accuracy.
- Developed a robust prediction model for future production volumes in shale oil and gas fields setting new benchmarks for production forecasting in complex geological settings.
- Implemented a data-driven preventive maintenance protocol powered by sensor analytics, leading to optimized equipment performance and longevity in challenging oil field environments.

Development of major shale gas play evaluation methods for the West Canadian Basin
Granted by Ministry of Energy, South Korea Dec 2017 - Dec 2019

- Spearheaded the development of an artificial intelligence model for the West Canadian Basin, focused on the time series prediction of shale gas production, integrating geological data with advanced analytical algorithms to forecast production trends.
- Orchestrated the creation of an economic evaluation program tailored for the oil and gas industry, leveraging forecast results to provide strategic insights into the financial viability and operational efficiency of shale gas extraction projects.
- Distinguished by the presentation of cutting-edge research at renowned domestic and international conferences, contributing to the body of knowledge in the energy sector and advancing the discussion on innovative exploration methodologies.

Research on Exploration Technologies and an On-site Verification to Enhance the Fracturing Efficiency of a Shale Gas Formation
Granted by Ministry of Energy, South Korea Dec 2016 - Nov 2017

- Led an extensive technical review and analysis in shale gas exploration, focusing on well and seismic interpretation, velocity modeling, and the identification of seismic anisotropies in fractures. This involved a comprehensive approach to reservoir characterization and geo-static modeling, enhancing the understanding of subsurface structures and their potential for gas extraction.
- Conducted a thorough evaluation of geo-mechanical properties critical to the efficient development of shale and tight gas formations. This included the assessment of pore pressure, Young’s modulus, Poisson's ratio, and Brittleness Index, providing vital insights into the viability and potential productivity of gas reserves.
- Authored a detailed technical manual for the shale/tight gas research project, encapsulating the methodologies, findings, and best practices gleaned from the research. This document served as a reference for current and future initiatives, ensuring the dissemination of knowledge and fostering continued innovation in the field.

Evaluations for Near Field Exploitation located in offshore Malaysia
Dec 2014 - Mar 2016

- Served as a Senior Geoscientist in the Near Field Exploitation team, spearheading the identification and development of structural and stratigraphic traps through extensive 2D/3D

seismic interpretation across the Sabah, Sarawak, and Malay basins, offshore Malaysia. This involved a strategic approach to hydrocarbon exploration, significantly contributing to the understanding of potential reservoirs in these regions.
- Employed advanced techniques such as Spectral Decomposition and RGB blending to delineate geo-morphological features imprinted in 3D seismic data, such as basin floor fans and channels, leading to the successful extraction of geo-bodies and enhancing the predictive accuracy of subsurface models.
- Orchestrated velocity modeling and Time to Depth conversion for comprehensive 3D models, integrating Synthetic Seismogram and Well to Seismic Correlation techniques for robust 3D seismic interpretation. This multi-disciplinary approach ensured a more accurate representation of geological structures, aiding in the precision drilling and extraction efforts.
- Pioneered the application of Waveform Classification methodologies to classify Seismic Facies, further calibrated with Litho-facies data from well logs, thereby improving the interpretive quality and reliability of seismic data analysis.
- Conducted detailed Attribute Analysis to characterize fluid properties, lithology variations, and fault/fracture networks within the subsurface, providing critical insights for optimized extraction strategies and risk management.
- Maintained stringent Quality Control over AVO (Amplitude versus Offset) and Inversion studies, ensuring the integrity and accuracy of all geophysical interpretations and related studies, underpinning the team's decision-making with reliable, high-quality data.

Field Development Project of the Akkas gas field located in Western Desert of Iraq

Nov 2011 - Nov 2014

- Contributed significantly to the Preliminary Development Plan of the Akkas field in collaboration with Schlumberger, demonstrating leadership and expertise in the strategic planning and execution of complex geological projects.
- Oversaw the processing of 3D seismic data, including Pre-Stack Time Migration (Pre-STM) and Pre-Stack Depth Migration (Pre-SDM), diligently reviewing and ensuring the quality of results through comprehensive Quality Control (QC) procedures. This ensured that all seismic interpretations were based on accurate and reliable data.
- Led the construction and mapping of sub-surface 3D models utilizing 2D/3D seismic data, employing advanced geophysical techniques to create detailed representations of the subsurface structures, crucial for informed decision-making in field development.
- Directed velocity modeling and Time to Depth conversion processes for 3D models, integrating Synthetic Seismogram and Well to Seismic Correlation to enhance the 3D seismic interpretation. This approach provided a more accurate and detailed understanding of the geological environment.
- Conducted in-depth Reservoir Geophysical Analysis, including Fluid Replacement Modeling, Amplitude versus Offset (AVO) modeling and analysis, Post-Stack and Pre-Stack Inversion, Shear Sonic estimation, and Multi-Attribute Analysis. These comprehensive analyses contributed to a nuanced understanding of the reservoir's properties and potential production capacities.
- Spearheaded the development of a Geo-static model using PETREL, which included constructing a structural framework, property modeling, and integration of various geological

data sets. This model served as a foundational tool in understanding and navigating the field's geological complexities.
- Created critical geological maps such as Isopach and Depth structure maps, along with performing Structural/Stratigraphic correlations and facies distribution mapping for the Geo-static model of the field, providing a detailed visual and analytical representation of the field's geological characteristics.
- Managed and analyzed a wide array of Geological and Geophysical Data, ensuring a holistic approach to the field's development strategy, encompassing all relevant geological and geophysical insights.

2D seismic acquisition project of Uzunkui onshore block in Uzbekistan

Jun 2009 - Dec 2010

- Orchestrated the design and implementation of a regional 2D seismic survey spanning 600km in the Uzunkui block, Uzbekistan, showcasing expertise in seismic survey methodologies and project management. This involved meticulous planning, tender evaluation, and quality control to ensure comprehensive subsurface imaging.
- Directed additional local 2D seismic operations to delineate and define structural configurations critical for prospective Wildcat drilling activities. This detailed seismic work was pivotal in identifying and characterizing potential hydrocarbon traps within the block.
- Provided strategic recommendations for the location and execution of Wildcat drilling within identified structures. This included selecting optimal well sites, determining target depths and horizons, and forecasting the expected depths of prospective horizons. The recommendations were based on a synthesis of seismic data and geological understanding, guiding drilling operations to maximize the chances of successful hydrocarbon discovery.

PUBLICATIONS

- **J.W. Kim**, Introduction of Slim Digital Oilfield System for Small and Medium Sized Onshore Oil and Natural Gas Field, EAGE Workshop on Big Data and Machine Learning for E&P Efficiency, 2019.
- **J.W. Kim**, H.W. Park, I.S. Jang, K.J. Jin, J.H. Lee, Smart EUR assessment of shale gas play using machine learning approach, Canada Korea Conference on Science and Technology, 2019.
- **J.W. Kim**, H.W. Park, I.S. Jang, K.J. Jin, Shale Gas Play Smart EUR Evaluation Method using Machine Learning, Resource Engineering Society, 2019.
- **J.W. Kim**, J.G. Kim, T.H. Lee, I. Hong, J.I. Yoon, C.H. Shin, Shale/Tight Gas Resource/Reserve Evaluation Procedures based on an On-site Verification to Shale/Tight Gas Production in Canada, Resource Engineering Society, 2017.
- S.M. Lee, **J.W. Kim**, C.E. Baag, 2 D Flexural Analysis of the Ulleung Back Arc Basin, East Sea (Sea of Japan), TAO, 2003.

PROFESSIONAL AFFILIATIONS

- Member of The Korean Society of Mineral and Energy Resources Engineers (**KSMER**), Dec 2016 - Present

HONORS AND AWARDS

- **Awarded Best Achievement,** Korea Gas Corporation, December 31, 2009

INVITED PRESENTATIONS

- **Jongwon Kim,** *The Rise of Digital Oilfield in O&G Industry*. International Energy Policy Program of Seoul National University, September 21, 2018. (Oral presentation)
- **Jongwon Kim,** *Domestic status of digital oil field technology development*. Workshop on Industrial Internet-based Offshore Plant Technology in Oil and Gas Industry. February 9, 2019. (Oral presentation)

COURSES/CERTIFICATES

- GeoGraphix GESXplorer & SeisVision, Landmark, March 26-30, 2007 (Course)
- Integrated sequence stratigraphy, Fugro Robertson, July 9-13, 2007 (Course)
- Petroleum Exploration & Production, NExT, October 27-31, 2007 (Course)
- Petrel Seismic to Simulation Training, Schlumberger, Oct 2007 – Jan 2008 (Course)
- Seismic Lithology Workshop, Hampson-Russell, November 16-20, 2009 (Course)
- Operations & Wellsite Geology, NExT, June 15-19, 2009 (Course)
- AVO, Inversion, Seismic Attribute, SCA, December 6-10, 2010 (Course)

LANGUAGES

- Full Professional Proficiency in English: Capable of engaging in complex professional conversations, presenting ideas, and communicating with precision.
- Native in Korean

SOFTWARE SKILLS

- Machine Learning: Python (Pytorch, TensorFlow, Keras, OpenCV, Scikit-learn, etc.)
- Oil and Gas Industry: Petrel, Hampson-Russell, Kingdom, GeoGraphix
- Others: MATLAB, Microsoft Word, Excel, Powerpoint

VOLUNTEERING

- Participated in community service by washing dishes and maintaining cleanliness in the cafeteria and parish hall of my local church.
- Engaged in the Agape department at my church to assist children with autism during worship services, providing support and care.