

# Kyuhwan Shim

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INTERESTS	Computer Vision (Object Detection & Segmentation), Application of LLM	
WORK EXPERIENCE	<b>Machine Learning Engineer Intern, Nota Inc.</b> Seoul, Korea	Mar 2023 – Present
	<ul style="list-style-type: none"><li>▪ <b>[Computer Vision]</b> Develop Vision-based AI models for Intelligent Traffic System<ul style="list-style-type: none"><li>• Application &amp; Experiment SOTA Computer Vision Model : YOLOX, YOLOv8 Pipeline</li></ul></li><li>▪ <b>[EdgeAI]</b> Inference Traffic Data Extractor Model on NVIDIA AGX Orin (at Deepstream 6.1.)</li><li>▪ <b>[MLOps]</b> Supplement ML Pipeline (kubeflow, Docker and GCP)</li><li>▪ <b>[Data/DevOps]</b> Construct Data lake for processing public data (AWS, GitHub Action)</li></ul>	
	<b>Senior Designer, OCONNECT</b> Ulsan, Korea	Jun 2020 – Feb 2023
	<ul style="list-style-type: none"><li>▪ Student Startup which makes Easy-Insert Socket, OneStep (CEO Hyeong-Jun Bang)</li><li>▪ <b>[R&amp;D PRJ]</b> at Didimdol R&amp;D start-up growth technology '22</li><li>▪ <b>[Achievement]</b> Winner @ James Dyson Award '22 KR, Ulsan Collegiate Startup Competition</li></ul>	
EDUCATION	<b>Sogang University</b> , Seoul, Korea	
	▪ B.S. in Computer Science	Mar 2019 – Presents
	<b>Chungnam Science High School</b> , Kongju, Chungnam, Korea	
	▪ H.S.D. in Informatics	Mar 2016 – Feb 2019
MILITARY DUTY	<b>Yeongdong Firestation</b> , Yeongdong, Chungbuk, Korea	
	▪ Korea Conscripted Firefighters Agency, Yeongdong Rescue & Firehouse	Aug 2020 – Apr 2022
AWARDS	<b>Grand Prize (1st Place)</b> , Gangseo-gu Office	
	▪ <b>[PPT]</b> Risk Rating Model for Small Business Owners in Gangseo-gu using the Credit Rating Model <ul style="list-style-type: none"><li>• Mayor of Gangseo-gu Office Award</li></ul>	2023
	<b>Grand Prize (Nat'l Information Society Agency President Award)</b> , NIA, Minister of Sci. & Tech.	
	▪ BIGCONTEST Data Analytics Innovation League 2022 Grand Prize (Runner-Up)	
	▪ <b>[PPT] [PRJ]</b> Carbon Footprint Calculator & Eco-friendly JEJU travel route RecSys.	2022
	▪ <b>[PDF] Speech</b> at Carbon Neutral Workshop of Shinhan Card & World Bank	2023
	<b>Excellence Award</b> , Chung-nam Science Fair (64th)	
	▪ <b>[Poster]</b> Solar Power System considering the impact of Wave Height	2018
	<b>Special Prize</b> , Chung-nam Science Fair (63th)	
	▪ <b>[Poster]</b> Laser Cutting Machine Using Mechanum Wheels	2017
SCHOLARSHIPS	<b>Sogang Alumni Scholarship</b> , Sogang University Alumni	
	▪ 1-semester full scholarship - General (2020), Startup (2022)	2020, 2022
	<b>Albatross Scholarship</b> , Sogang University	
	▪ 1-year full scholarship for talent in SW Fields	2019
	<b>Myunghak Scholarship</b> , Kongju Myunghak Scholarship	2017
	<b>Samsung Dream Scholarship</b> , Samsung Dream Scholarship Foundation	2016
CERTIFICATES	<b>Certificate in Tensorflow Developers</b> , Tensorflow Certificate Program	Oct 2021 – Oct 2024
	<b>Advanced Data Analytics Semi-Professional</b> , Korea Data Agency	Apr 2021
	<b>ITQ OA Master</b> for Microsoft Powerpoint, Excel, Hancor Hangul	Oct 2011
	<b>GTQ Lv-2</b> for Adobe Photoshop	Oct 2011
ACTIVITIES	<b>LG Aimers</b> : Online AI Education & Hackathon, LG AI Research & DACON	
	▪ Subject : Smart Factory Product Quality Status Classification AI Online Hackathon	
	▪ Phase 3 Online Hackathon Finalist, Phase 2 Top 29 (3%, 29/891)	Jan 2023- Mar 2023
	<b>INSIGHT</b> : Data Science, Business School of Sogang U.	
	▪ Data Analysis & ML/DL Leading TA, Various Projects (RecSys, NLP, etc.)	Sep 2022- Jun 2023
	<b>Round 1</b> , Google Code Jam	Jul 2021

	<b>Co-Founder, Chief Design Officer, Programmer, OCONNECT</b> <ul style="list-style-type: none"> <li>Assist developing ONESTEP, an easy-insert socket</li> <li>Design IR Document &amp; Assist on Operation to developing an Moissanite Product</li> </ul>	Jun 2020- Present
	<b>Google Machine Learning Bootcamp, Google Korea</b> <ul style="list-style-type: none"> <li>Coursera DL Specialization, Certificate in Tensorflow Developers</li> <li>Kaggle Competition, Online Webinar &amp; Tech Talks</li> </ul>	Sep 2021- Dec 2021
	<b>Sogang ICPC Team, Sogang University CSE</b> <ul style="list-style-type: none"> <li>Algorithm Problem Solving Group</li> </ul>	Mar 2019 – Present
MEDIA	<b>'Nunettine' wins Grand Prize at Gangseo-gu Big Data Contest, Sogang People</b> <b>'DAVENGERS' wins '22 BIGCONTEST Data Analytics Innovation League, Sogang People</b> <b>UNIST venture 'OCONNECT' wins James Dyson Awards 2022, UNIST Press</b>	May 2023 Dec 2022 Sep 2022
SPEECH	<b>Carbon Neutral Workshop of Shinhan Card &amp; World Bank</b> <ul style="list-style-type: none"> <li><b>[PDF]</b> World Bank Workshop to Share Carbon-Neutral Management Practices</li> <li><b>Attendee : World Bank, Shinhan Card</b> <ul style="list-style-type: none"> <li>Richard Damania, Jun Rentschler, Jason Russ (World Bank Chief Economist),</li> <li>Prof. Hyungna Oh (Kyunghee U.)</li> <li>Shinhan Card Data Biz Team</li> </ul> </li> <li><b>Team DAVENGERS</b> : Speaker as an Winner of BIGCONTEST 2022</li> </ul>	May 2023
LANGUAGES	<ul style="list-style-type: none"> <li>Korean: Native</li> <li>English: Fluent</li> <li>Hanja : Lv-3 (Korea Association for the Promotion of Hanja Edu.)</li> </ul>	
SKILLS	<ul style="list-style-type: none"> <li>ML Framework: PyTorch, TensorFlow</li> <li>Programming : C/C++, Python (Intermediate), Verilog, MATLAB, Assembly Language, <math>\LaTeX</math> (Novice)</li> <li>MLOps &amp; DataOps : AWS, GCP, Edge Devices (NVIDIA AGX Orin), Docker, Kubeflow</li> </ul>	
PROJECTS	<b>Game Review Dashboard Implementation with NLP Sentimental Analysis</b> <ul style="list-style-type: none"> <li><b>[Award]</b> Grand Prize from InsightCON, 2023 Spring INSIGHT Projects Competition</li> <li><b>[PPT]</b> Game Review Analysis Dashborad applying NLP Methods : BiLSTM, KoBERT (Fine-tuned)</li> <li><b>[My Job]</b> Developing Game Review NLP Dashboard Main Page Configuration</li> <li><b>[Tech Stack]</b> Python, Pandas, NumPy, PyTorch, TensorFlow, Docker, FastAPI, KoNLPy, Plotly</li> <li><b>[Team NT Fragile]</b> Hyunjae Kim, ChanJoong Lee, Beomyun Kwon, Chanho Park, Minhye Lee</li> </ul>	May 2023 –Jun 2023
	<b>Risk Rating Model for Small Business Owners using the Credit Rating Model</b> <ul style="list-style-type: none"> <li><b>[Award] [PPT]</b> Mayor of Gangseo-gu Office Award</li> <li><b>Integrated data</b> in Gangseo-gu, focusing on data from the Seoul Credit Guarantee Foundation</li> <li><b>Risk Rating model</b> for small business owners in Gangseo-gu using the credit rating model</li> <li><b>[Link]</b> Creating a Risk Index Dashboard with Tableau</li> <li><b>[My Job]</b> Data Analysis &amp; Processing, Designing Presentation</li> <li><b>[Tech Stack]</b> Python, Pandas, NumPy, Tableau</li> <li><b>[Team NUNETTINE]</b> Heejin Park, Mijung Bang</li> </ul>	Mar 2023 –May 2023
	<b>Development of Carbon Footprint calculator</b> <b>&amp; Eco-friendly travel route recommendation system in Jeju Island</b>	Sep 2022 – Oct 2022
	<ul style="list-style-type: none"> <li><b>[Official Project Link]</b> Innovation League Grand Prize (Runner-Up) @ BIGCONTEST '22 <ul style="list-style-type: none"> <li><b>[Award] [PPT]</b> Nat'l Information Society Agency (NIA) President Award</li> </ul> </li> <li><b>[My Job]</b> Develop with Streamlit &amp; Deploy with Streaming Sharing, Design an Official Project Webpage, CI/CD with GitHub <ul style="list-style-type: none"> <li>Assist on applying NLP methods and designing an user-specific ML algorithm</li> </ul> </li> <li><b>[1] Carbon Footprint Calculator</b> Construct Carbon Footprint Calculator by Travel Area <ul style="list-style-type: none"> <li>Defined Categories : Traffic, Food, Accommodation and Tourism</li> <li>Crawling raw data from 'VISIT JEJU' &amp; 'NAVER Map'</li> <li>Processing &amp; Cleansing &amp; EDA and Design Calculator Logic for those 4 categories</li> </ul> </li> <li><b>[2] Eco-Friendly &amp; User-Specific JEJU Travel Route Recommender System</b></li> </ul>	

- **[Traveler Feature Hexagon]** Deployed with Streamlit
- **[Link]** Score Calculation by Tourist Spot with NLP, Word2Vec, t-SNE, Clustering
- **[Link]** Rule-Based Machine Learning Algorithm
- **[Team DAVENGERS]** Jeonghyun Ha, Kyunghoon Na, Kyungjoo Ko, Hannah Jung
- **Skill Stack**
  - Main Language : Python
  - Library : Pandas, Streamlit, Matplotlib, Plotly, Seaborn, NumPy, GeoPy
  - Develop Environment : Jupyter Notebook, Google Colaboratory (Windows 10, Mac OS X)
  - Deployment : Streamlit Sharing
  - CI/CD & Cooperation with GitHub

**Shell Project**, System Programming, Sogang University Apr 2022 – Apr 2022

- **[GitHub Link]** Design my own Shell which translates user's command to the Kernel
- [1] Built my own linux shell with C Language, which executes with Linux Basic Command such as 'cd', 'mkdir', 'rmdir', et al.
- [2] Create child process with 'fork()' function, and parent process create a new child process for each instruction by parsing from a Pipelined command.

**Stock Server Project**, System Programming, Sogang University May 2022 – May 2022

- **[GitHub Link]** Construct a concurrent stock server which can be connected by multiple clients that ask to buy or sell stocks concurrently
- [1] Two Approaches to serve stock server : Event-based, and Thread-based
- [2] Show the status of current stock written from stock.txt file
- After command exit() from the server, update stock.txt file with the rewritten stock status