



MLOps Platform for Innovators

DS2.ai

Data
Science
LABoratory

DSLABGLOBAL

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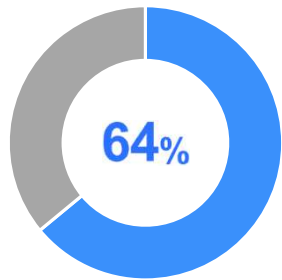
Contact Us

Why DS2.ai ?

Why DS2.ai? (1/2)

Problem

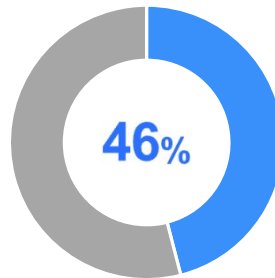
| Barriers to AI Implementation



Lack of expertise in AI

Source: GARTNER,
Annual IT Symposium, 2019

| Key Issues in the Current Data Industry



Data acquisition and quality issue

Source: O'reilly, 2018

| Absence of AI Professionals



Absence of AI professionals



Rising labor costs intensify barriers
to AI Adoption

Source: KOSIS, 2018

Why DS2.ai? (2/2)

Solution



Build training data with automation system



Rapid automated artificial intelligence development technology



Management of AI processes from AI deployment to operations and advancement

With patented automation technology, we carry out the entire process of introducing AI from data processing to AI model development.

DS2.ai helps you overcome the high barriers of AI adoption.

Service Overview



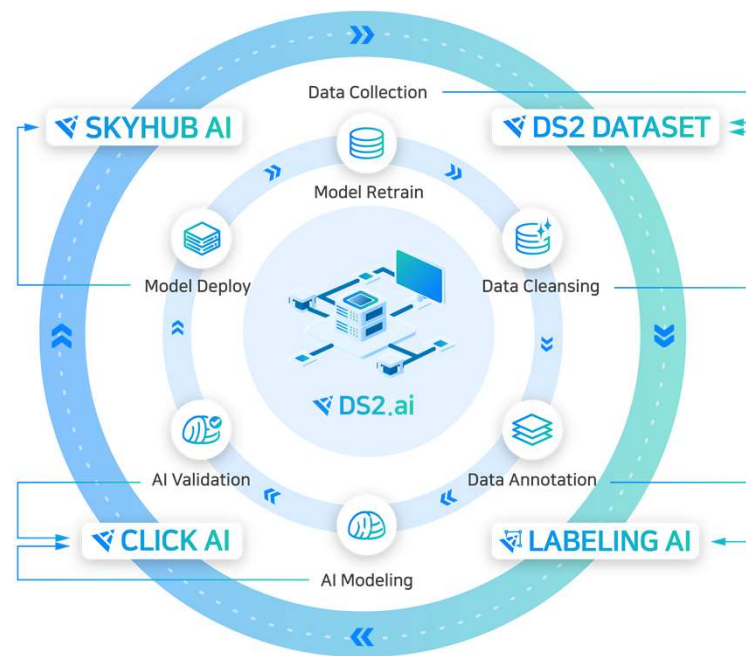
DS2.ai, abbreviation for **Data Science Developer Studio**, is an **ML OPS platform** takes care of entire **artificial intelligence implementation process** from AI modeling to deployment and operation

DS2.ai Service Overview (1/6)

Service Configuration

AI MARKET

You can make a request to build your desired AI model or purchase the pre-made AI in the form of an API



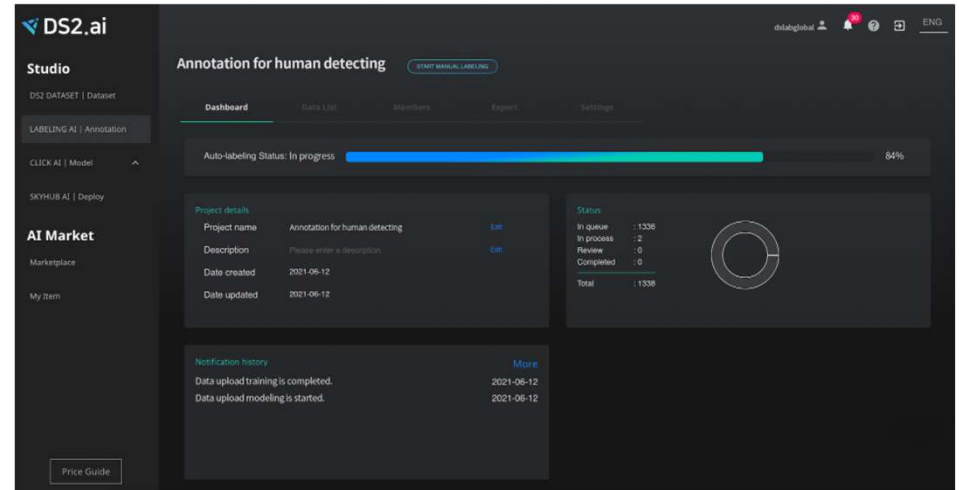
Collect data, build training datasets through data labeling, automatically develop artificial intelligence, and easily deploy and operate AI.

LABELING AI

Label your data **faster and more efficiently**



Utilize **magic tool** to **efficiently** label complex objects



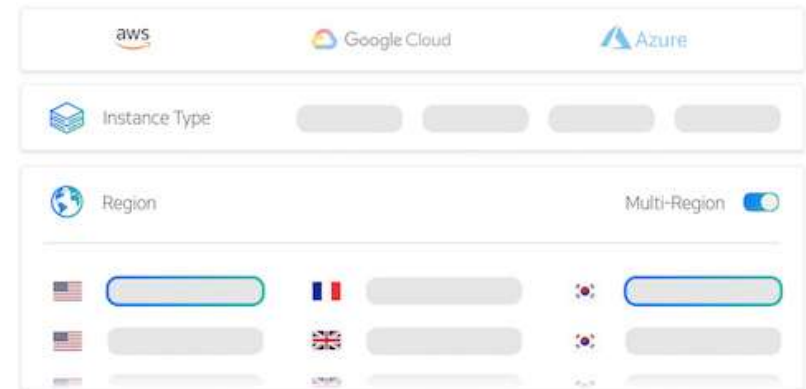
Automatically obtain large amounts of labeling data with **auto-labeling** technology

CLICK AI

Intuitive and easy AI Development



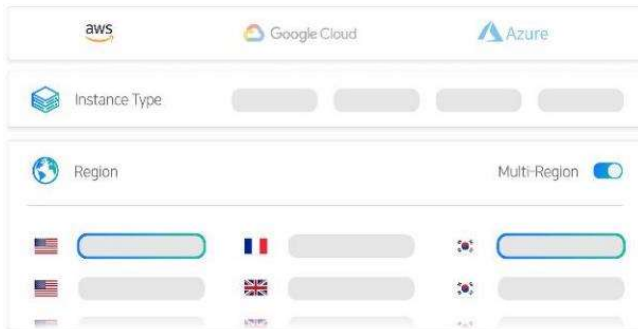
Automatically create AI models with just a **click of a mouse**



Develop AI model on your own by choosing the optimal **customized training server** and **operating environment**

SKYHUB AI

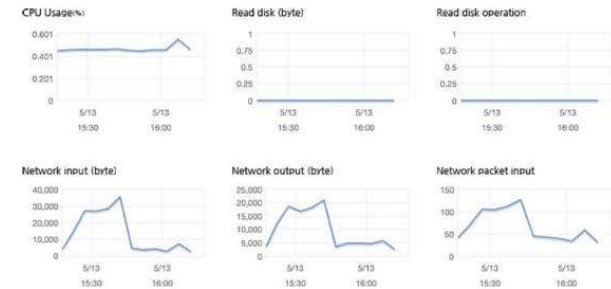
AI Ops system for artificial intelligence deployment, operation and management



Choosing an optimal operating server environment



Self-learning and advancement



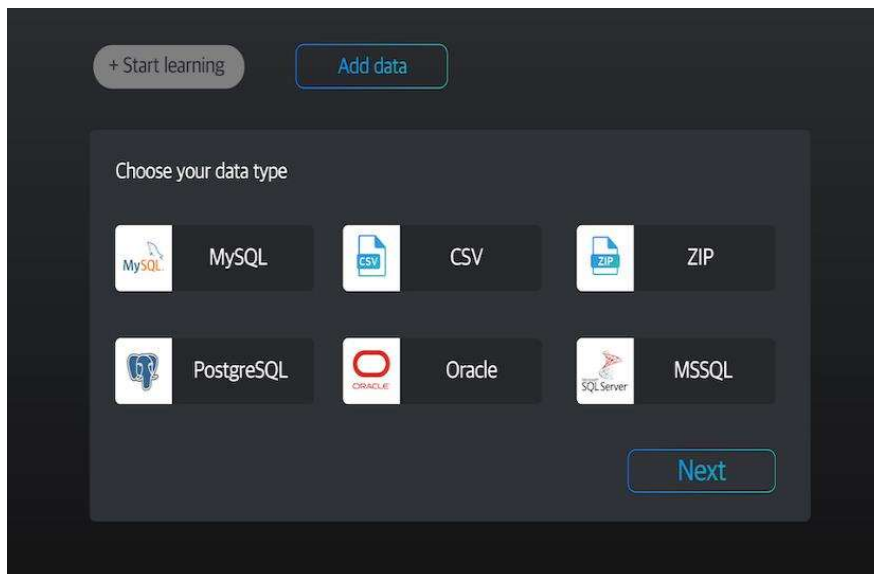
Real-time monitoring of operating environment



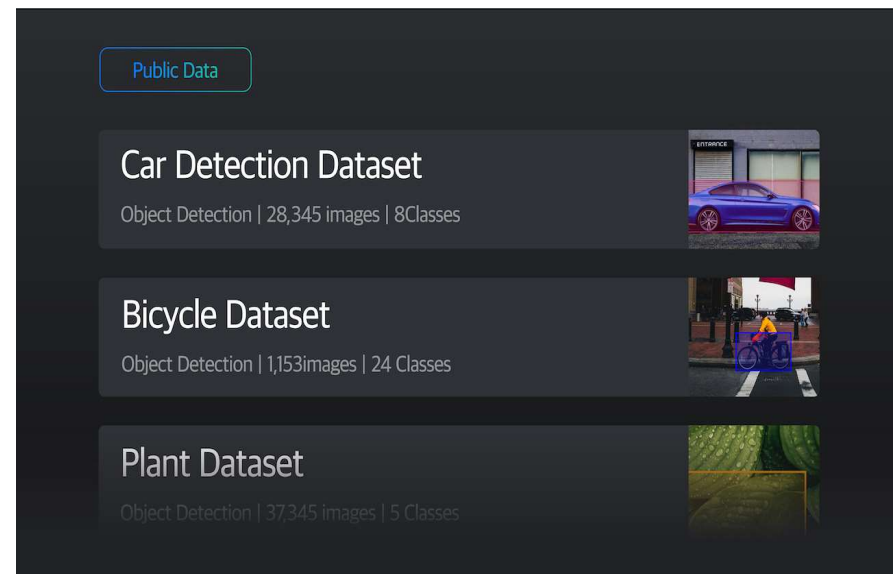
Easy redeployment using API

DS2 DATASET

Increased utilization of existing data



Supports a variety of extensions: utilize your data as is



Public Data: If you don't have enough data, you can utilize public data

QUICK START

Efficient application of existing AI models



Finance

Credit Score Prediction

The credit score prediction model reduces exposure to credit risk and loss by identifying applicants who are at high risk of...



Finance

Loan Repayment Prediction

Risk management is an important part of financial company management. Risk managers can prevent bank losses in...



Finance

Product service analysis and recommendation

By recommending products to customers, you can prevent customers from churning while doing customized marketing to...



Finance

Money laundering prevention and prediction

Financial crimes are on the rise due to the increase in the volume of financial transactions as financial companies adopt...



Finance

Customer churn prevention

Customer retention is more important than acquiring new customers. If you can prevent churn by predicting which of your...



Finance

Trade Surveillance

You can detect suspicious transaction behavior in the market that indicates illegal behavior through transaction patterns usi...



Finance

Trade Surveillance

You can detect suspicious transaction behavior in the market that indicates illegal behavior through transaction patterns usi...



Insurance

Insurance Product Recommender

We can recommend insurance products that customers need by analyzing their personal information and lifestyle...



Insurance

Claim Analysis and Prediction of Insurance Fraud

When looking at insurance, the most common form of fraud is plain and difficult to detect. CLICK AI analyzes customers'...



Insurance

Simplification of Insurance Subscription Screening

AI, learned by collected customer personal information (gender, age, occupation, coverage, insurance payments, past chroni...



Insurance

Automation of Estimate

It takes a long time to check the estimate of the accident cost after the traffic accident. You can get a repair cost estimate afte...

Service Description

STUDIO

The logo icon consists of a blue square with a white geometric pattern of lines and dots, resembling a stylized 'L' or a data visualization element.

LABELING AI

LABELING AI Description (1/4)

LABELING AI

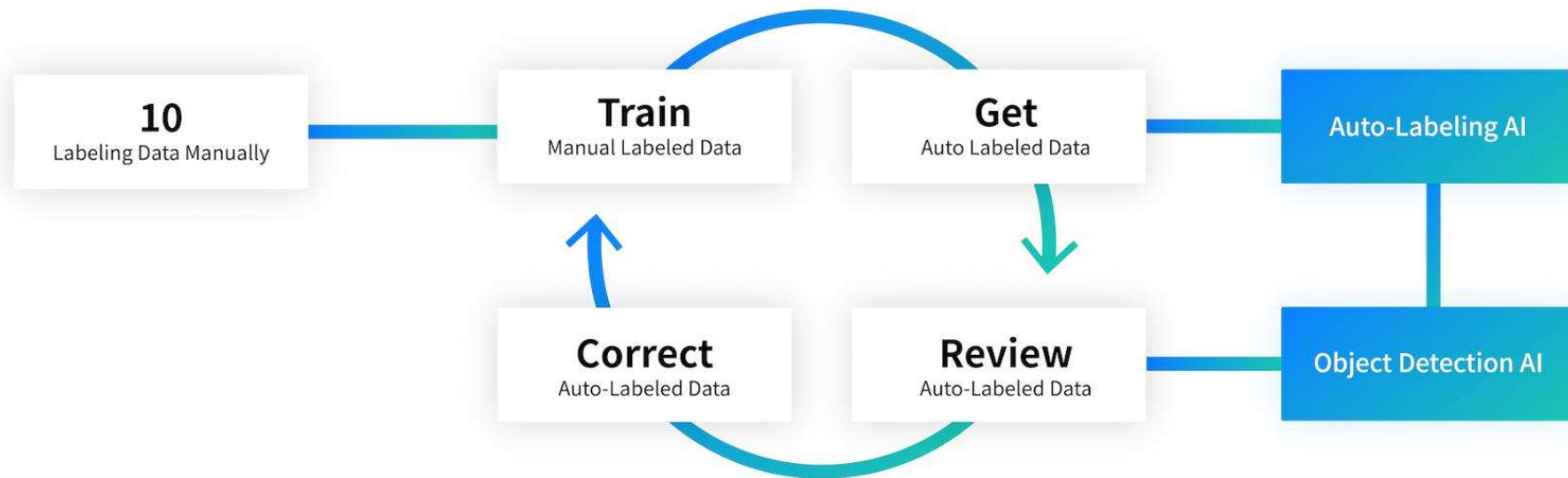
The **fastest** and most **accurate** way of **labeling data**

With only **10 sample labeling**, deep learning-based AI can **automatically label large amounts of data**.

1. Labeling manually

2. Training Model

3. Deploy the best AI



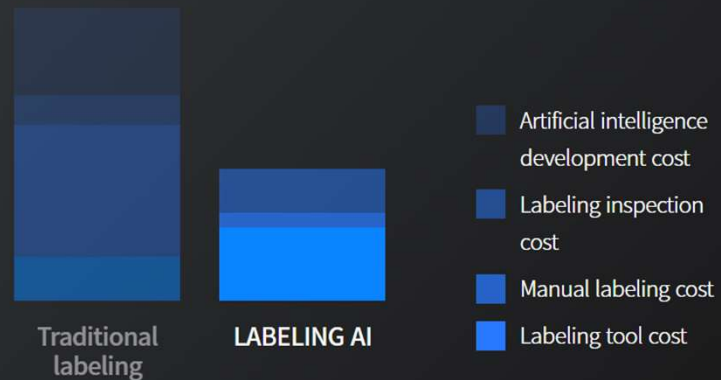
LABELING AI

The most reasonable way to leverage automatic data labeling

Dramatically saves both time and cost on labelling operations at the existing 20 percentage points.

80% cost reduction

The entire process from training data preparation to AI deployment can be solved with LABELING AI, saving the cost and duration of the project.



* Only the auto-labeling results that passes the inspection will be processed for payment.

LABELING AI

Conveniently and efficiently use different types of labeling and **additional features** to suit your needs



Magic Tool

Magic Tool allows you to use the Bounding Tool (right) to show the effectiveness of the Polygon Tool (left)



Semantic Segmentation

Image classification at a pixel level: link each pixel in an image to a class label

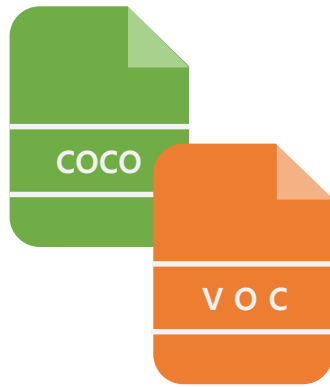


Skeleton

Identify a person, detect moving joints of a person and project predetermined skeleton into segments.

LABELING AI

Ensure high scalability of labeling tasks with **working environments** and **model settings** tailored to your needs



Import / Export Data

Perform labeling operations by importing labeling data from various work environments into LABELING AI. You can extract labelling coordinate data that you have worked on in a variety of formats.

Select AI type

- Custom AI : Labeling by generating artificial intelligence based on the labeled training data
! Important : Available after creating a Custom AI.
- General AI : Labeling with pre-made artificial intelligence from LABELING AI
 - Human
 - Animal
 - autonomous driving
 - Face Point Detection
 - Human Key Points

Auto Labeling created with various artificial intelligence models

- Custom AI: Train manual labeling data to create your own model and perform Auto Labeling
- General AI: For common objects such as people and animals, auto-labeling is performed directly without learning via pre-generated AI models

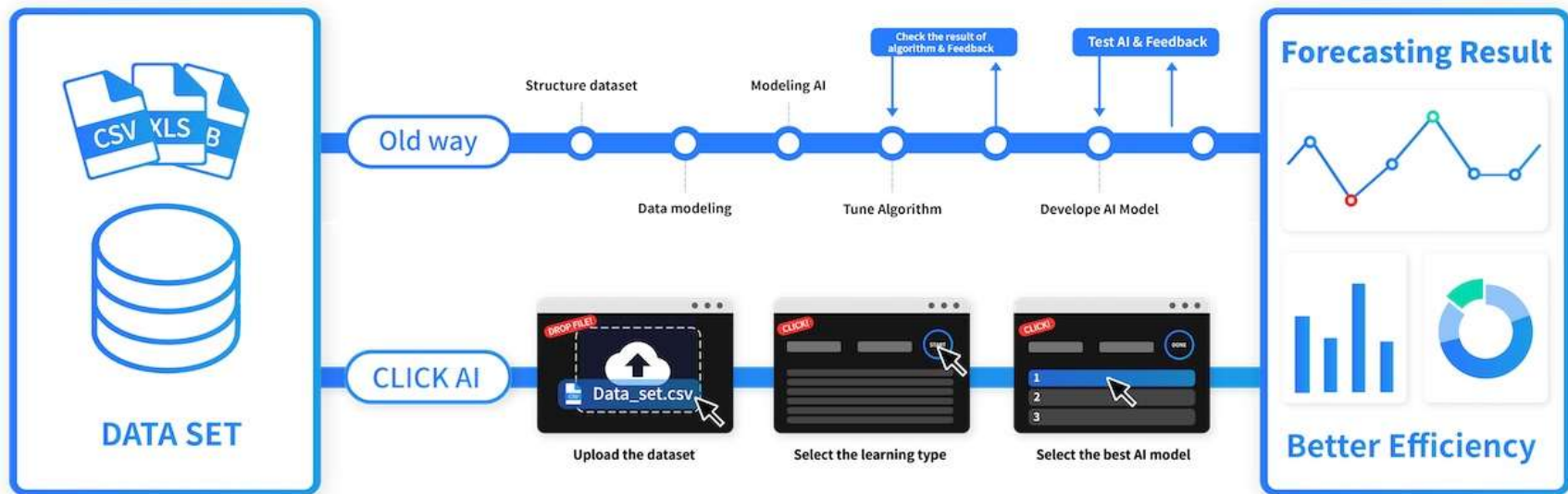


CLICK AI Description (1/5)

CLICK AI

Deep learning-based AI can be developed **without writing a single line of code.**

- CLICK AI has automated all AI development processes, such as data modeling, algorithm setting, and model testing, necessary for deep learning-based artificial intelligence..

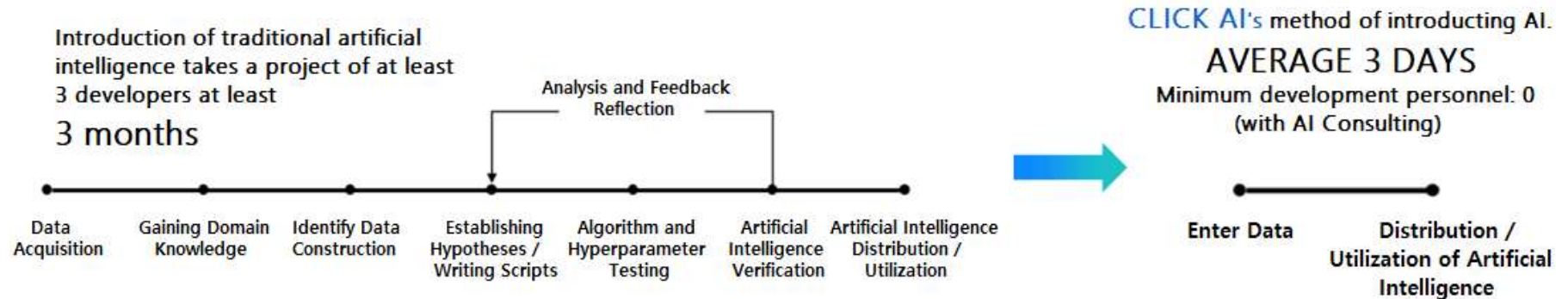


CLICK AI Description (2/5)

CLICK AI

CLICK AI can save more than 90% of the time and labor required to develop and implement AI

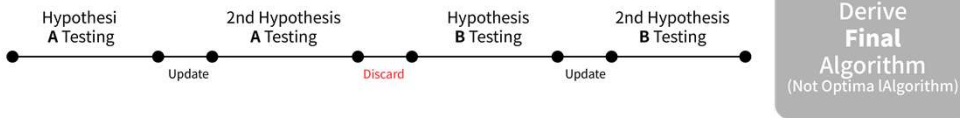
CLICK AI enables deep learning-based AI with just a click without a single line of coding.. If necessary, we provide [professional AI consulting services](#) to introduce in-house artificial intelligence.



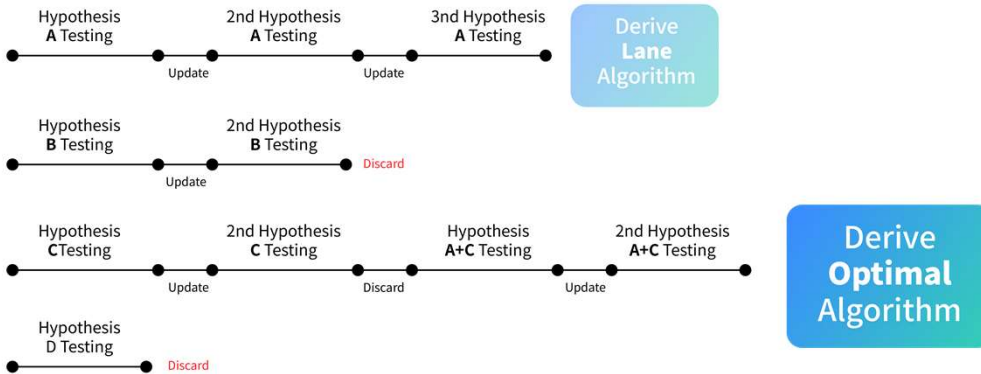
CLICK AI

Faster and more in-depth AI development processes

Traditional AI Development Process



DS2.ai's AI Development Process



Pre-trained Model

Utilize pre-trained models to accelerate artificial intelligence learning time

Development Time

**Minimum
1 minute**

* Based on 25MB file



Few-shot Learning

Artificial intelligence learning with only a small amount of data

Minimum data required

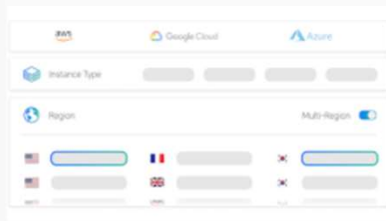
**Minimum
100**

CLICK AI Description (4/5)

CLICK AI

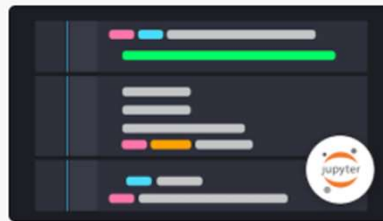
We **provide development environment that is essential** for experts and professionals

The combination of professional expertise and CLICK AI **provides essential functions for training servers and development** to achieve maximum effectiveness.



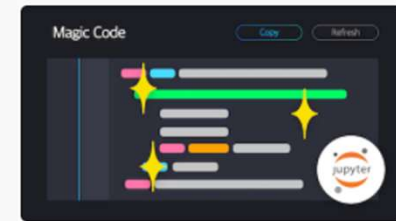
Customized Learning Server Configuration

Without the ability to deploy back-end servers, customized learning servers with desired performance can be easily configured.



Code with the Jupyter environment

In a Jupyter environment, you can code the desired algorithm directly and develop artificial intelligence by tuning the hyper-parameters.



Magic Code Automatically Generated

Just copy and paste into Jupyter to automatically generate Magic Code that even non-professionals can start developing artificial intelligence.

CLICK AI

Three methods of developing artificial intelligence tailored to your needs

With CLICK AI, you can develop artificial intelligence by [selecting the appropriate method among the three options](#).

Custom Training

Develop AI directly in a Jupiter environment by leasing the learning server with the desired performance

- ✓ Tune Algorithms freely
- ✓ Set up customized servers for your budget
- ✓ Requires expertise on data and artificial intelligence

AutoML

Using CLICK AI, automatically develop artificial intelligence you want with just a click without any coding

- ✓ Automated artificial intelligence development
- ✓ Get AI models rapidly within 3 days
- ✓ Provides basic data preprocessing functionalities
- ✓ Kaggle's Top 1% AI Accuracy

AutoML + Consulting

Consultants provide from data preprocessing to artificial intelligence development using CLICK AI

- ✓ Automated artificial intelligence development
- ✓ Gain customized models by professional consultant
- ✓ Customized data preprocessing services
- ✓ Kaggle's Top 1% AI Accuracy



SKYHUB AI Description (1/5)

SKYHUB AI

Optimal environment composition for artificial intelligence operation and management

SKYHUB AI is an **MLOps service** that provides from the deployment of artificial intelligence models to operation/management and advancement.

*Project Name
ck40gyw_1620080113979

*Recommended Cloud
aws | Microsoft Azure | Google Cloud

*Recommended region

AP	EU	US
ASIA PACIFIC (HONG KONG)	EUROPE (FRANKFURT)	US EAST (OHIO)
ASIA PACIFIC (MUMBAI)	EUROPE (IRELAND)	US WEST (N. CALIFORNIA)
ASIA PACIFIC (SEOUL)	EUROPE (LONDON)	US WEST (OREGON)
ASIA PACIFIC (SINGAPORE)	EUROPE (MILAN)	US EAST (N. VIRGINIA)
ASIA PACIFIC (SYDNEY)	EUROPE (PARIS)	
ASIA PACIFIC (TOKYO)	EUROPE (STOCKHOLM)	
AF	CA	
AFRICA (CAPE TOWN)	CANADA (CENTRAL)	

gxhx7tb4_1626070793138 [Change](#)

API Calls

0

[DELETE PROJECT](#)

[PREDICT](#)

[SHARING A SERVICE APP](#)

[ADD SERVER GROUP](#)

[RELEARNING LABELING](#)

[API SALES](#)

No	region	Instance ID	Instance Type	Status
0	ap-northeast-2			
		i-0b651ec179a0ab1a	g4dn.2xlarge	running

4. SKYHUB AI Description (2/5)

SKYHUB AI

1. Advancement through artificial intelligence model relearning



Advancement of AI through continuous relearning

The artificial intelligence model can be continuously advanced by adding and retraining the data generated through the operation of AI to the initial training data.

2. Support for distribution of artificial intelligence algorithms to be used in business models



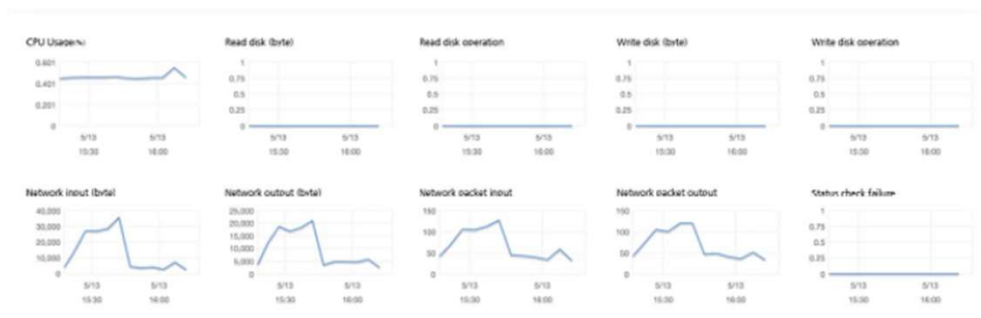
Rapid AI model algorithm deployment using API

Not only our CLICK AI, but also an externally developed AI model algorithm can be distributed, and APIs in four languages can be automatically generated and used in business models.

4. SKYHUB AI Description (3/5)

SKYHUB AI

3. Efficient operation and management of artificial intelligence models



CLICK AI

SKYHUB AI

Server Setting	using DS2.ai's server	configure your own server
Model Delay	occurs when downloading AI models (with delay)	download model when booting (no delay)
API Rate	5 times/1sec	depends on the server
Billing	per API call	Hourly Server Usage
Region	Korea only	Available Worldwide

Real-time monitoring of AI operating environment

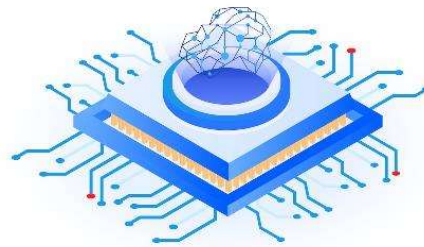
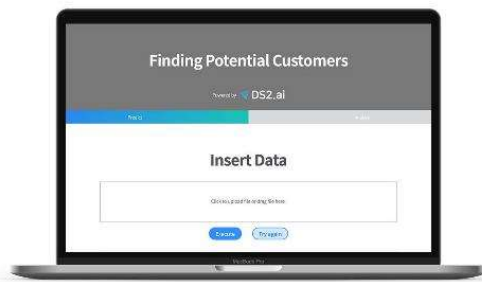
You can monitor the server of the built AI pipeline in real time through the dashboard and respond quickly to issues.

Optimized server configuration for AI management

You can deploy and operate AI by using a public server according to the operating environment or by configuring an optimized external cloud server such as AWS, GCP, and AZURE.

SKYHUB AI

4. Securing **high service utilization** according to **various distribution methods** of artificial intelligence models



Cloud

Developed artificial intelligence can be distributed and applied directly to services with API. Also, you can make artificial intelligence into a web service only by URL **through 'sharing service apps'** without any additional service.

Edge

Artificial intelligence developed by DS2.ai can **be mounted on edge devices** and the inference results of edge devices can be managed in an integrated environment by linking them with SKYHUB AI. It also **supports retraining** to improve AI accuracy.

Sensor

Using numerical data collected through **various sensors**, you can construct hubs for developing artificial intelligence, and configure **various inference environments** based on **anomaly detection** and artificial intelligence.

5. SDK support for convenient programming development

```
from ds2 import DS2

ds2 = DS2(apptoken="s2234k3b4")
ds2.deploy(
    "people.zip",
    cloud_type="AWS",
    region="us-west-1",
    server_type="g4dn.xlarge"
```

SDK(Software Development Kit)

Build a data pipeline for MLOps at DS2.ai with Python code. SDK enables access all functions of DS2.ai, from uploading data to creating labeling to training and deploying artificial intelligence.

The logo consists of a blue triangle pointing downwards, with a white stylized 'D' shape inside it.

DS2 DATASET

DS2 DATASET

Automatic data connector and refinement solution

DS2 Dataset is a solution that takes care of the entire process [from uploading the training data to AI modeling](#).

Optimal AI services can be provided through data connection, combination, summarization and preprocessing capabilities.

Data preprocessing

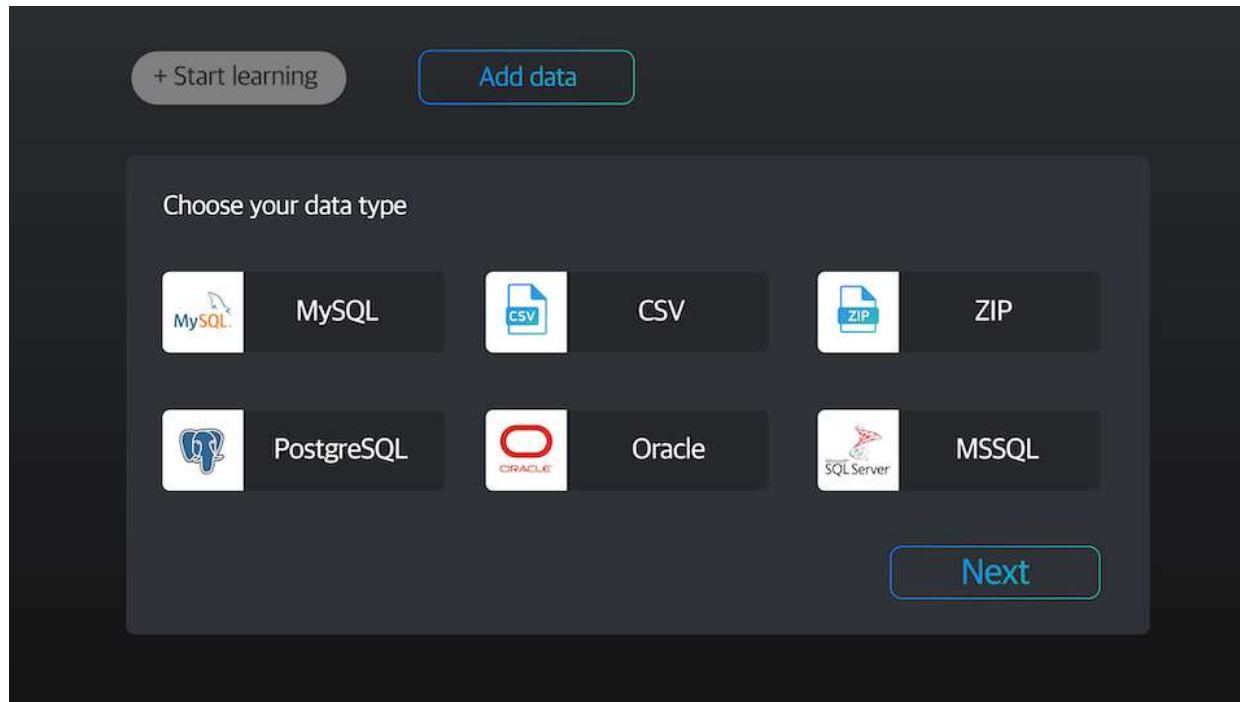
- Data cleansing: Delete rows with less than 'n' unique values.
- De-identification: Delete columns in which unique values account for n% or more of the total number of data..
- Data replacement: Fill empty values with...
- Data replacement: Delete rows with empty...

Column name	Index	Number of data	Missing value	Unique key	Type	Minimum value
age	1	41188	0	78	number	17
job	2	41188	0	12	object	
marriage	3	41188	0	4	object	
graduate	4	41188	0	8	object	
credit	5	41188	0	3	object	

DS2 DATASET

The most convenient way to **utilize existing data**

The **existing data** can be used for AI training process without any complicated changes.

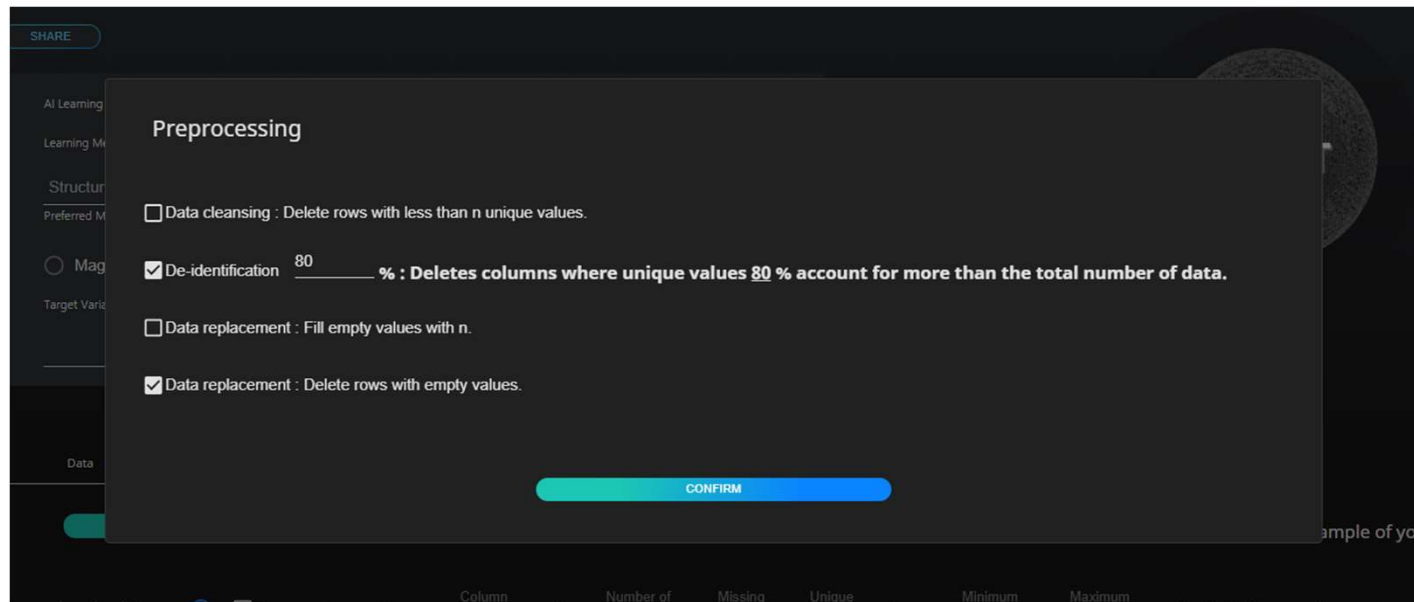


DS2 DATASET Description (3/3)

DS2 DATASET

The most convenient way to **pre-process existing data**.

In order to increase the accuracy of the model, the **process of refining the raw data**, such as combining, deleting and replacing unnecessary values, can be done **with one click**.



AI MARKET

AI MARKET Description (1/6)

Quick Start

If you have the data needed for model training, you can use the developed AI model right away

Quick Start

Quick Start refers to the developed artificial intelligence among the model list on the AI MARKET, and it is a service that allows you to use the artificial intelligence right away.

- ✓ No training data required
- ✓ Ready to use
- ✓ Customized upgrades available
(*need to check availability for each model)

Quick Start Process



Quick Start

Minimize development costs and time by utilizing pre-developed artificial intelligence models

With Quick Start, existing AI models can be used directly through [API integration without any additional model development](#) (see below model example below). [Artificial intelligence by industry sector](#) is prepared to minimize labor required for model development. and maximize business capabilities..



Others

Price prediction

The price fluctuation of commodity goods is an important indicator that affects the macroeconomic as well as the supply an...



Others

Restaurant customer service optimization

You can predict visitor traffic or order volume by analyzing data regarding seasons, events, food orders and inventory. By...



Others

Game customer analysis

Gaming is one of the very important elements to understanding the perception and psychology of consumers. If the game...



Others

Disaster detection and lifesaving

Disasters are becoming more diverse and complex, and the safety awareness and awareness of disasters are increasing due L...



Others

Hazard product detection

The increasing number of cases threatening the safety of aircraft such as in-flight riots, kidnapping of airborne aircraft, and...



Common

Human Detection

Detecting humans in images or videos can be useful in various fields, including the development of suitable business strateg...



Common

OCR

Optical character recognition (OCR) is a technique that locates letters in images, photographs, scanned documents, etc., and...



Common

Human skeleton extraction

The traditional posture recognition method was to attach equipment such as sensors to humans to understand their...



Common

De-Identification

The Data Protection Act (Amendment to the Privacy Act-Amendment to the Information and Communication Network Act...



Common

Face Landmark

Features such as nose, eyes, mouth, eyebrows, and chin line on a person's face can be called landmarks. Face Landmark AI...



Common

Living Space Detection

Object detection in living spaces is specialized for objects, such as microwave, oven, chair, table, mouse, and laptop. Living...

CUSTOM AI

In-house AI introduction program through professional consulting

Custom AI

It is a service that allows you to request the development of a customized artificial intelligence for the solution if there is a desired model from the list of artificial intelligence models on the AI MARKET.

- ✓ Training data required
- ✓ Development time required
- ✓ Custom development available

1. Data Consultation

- Provides the overall framework needed for AI to be implemented

2. Data Diagnostics

- Check to see which data can be utilized for AI from a business perspective.

3. Data Analysis

- Provide guidelines for businesses from a data analytics perspective.

Custom AI Process



AI MARKET Description (4/6)

CUSTOMAI

We develop your model by combining the AI model used in related industries and your **business characteristics**.

Each industry has its own sample artificial intelligence, which operates in a large framework and it creates more precise artificial intelligence by **adding the unique characteristics of your business**.



Finance

Credit Score Prediction

The credit score prediction model reduces exposure to credit risk and loss by identifying applicants who are at high risk of...



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Loan Repayment Prediction

Risk management is an important part of financial company management. Risk managers can prevent bank losses in advan...



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Product service analysis and recommendation

By recommending products to customers, you can prevent customers from churning while doing customized marketing to...



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Customer churn prevention

Customer retention is more important than acquiring new customers. If you can prevent churn by predicting which of your...



Finance

Trade Surveillance

You can detect suspicious transaction behavior in the market that indicates illegal behavior through transaction patterns usin...



Manufacture

Inventory optimization

Problems such as worker errors and delayed inventory movements during warehouse management have a negative impact...



Manufacture

Predictive maintenance

Predictive maintenance is an important factor in ensuring stable production capacity to identify potential problems that may...



Manufacture

Safety monitoring

It can detect and warn safety risks in real-time by analyzing and predicting image-based data under the collected video of...



Manufacture

Demand forecast

Demand forecasting is a complex process that requires not only the data analysis but also the large-scale work of profession...



Manufacture

Fault prediction

It is very important to measure the number of product defects produced by a manufacturer because it is directly related to L...

CUSTOM AI

Combination of AI auto-development solutions and professional consultants



Seungki Yeo
CEO

SK Hynix | Create a predictive model that corrects errors in semiconductor design and perform error correction
Liberfinance | Create a credit rating measurement model based on deep learning based on customer data and perform data scientist work
Nielsen Korea | Proceed the project for the development of advertisement prediction model
In addition, experience participating in more than 15 development projects in Motorola Korea, HnBgenomics, and Traport
Top 10% in 5 categories including Python in global development agency platform Upwork

"We will help you create value through artificial intelligence by applying the know-how of various artificial intelligence projects to your company"



Park Keun Oh

Consultant / AI Analyst

Master's Degree
from University of
Nottingham



Kim Eun Mi

Consultant / AI Analyst

Master's Degree
from University of Texas at Dallas



Jeon Seong Kyeong

Consultant / AI Analyst

Bachelor's Degree
University of New York



Cho Sung-j

Consultant / AI Modeling

Bachelor's Degree
from Seoul National
University



Kim Young Hoon

Consultant / AI Modeling

Master's Degree
from University Ulsan



Lee Jung Ryo

Consultant / AI Analyst

Bachelor's Degree
from Korea University

AI MARKET Description (6/6)

AI MARKET

Generate profit through **artificial intelligence model sales**

AI sales

- API provision
- Model download available
- Chipset sales offer

Desired price	40	KRW
Brokerage fee	4.0	KRW
Desired price	8000000	KRW
Brokerage fee	80000.0	KRW
Desired price	8000000	KRW
Brokerage fee	80000.0	KRW

Artificial intelligence models developed through DS2.ai Studio can be listed on the AI MARKET to **generate revenue**. Simply choose your **sales method** (API, Model download, Chipset) and your **desired price**.

Customer Use Cases

4. Use Cases (1/3)

Use Cases

Healthcare Product Recommendation



Contents of Assignment

Healthcare AI development

Processing Data

Customer health information

Analysis and Modeling

Recommend prescription drugs and healthcare products

Contract Review Solution



Contents of Assignment

Scoring contracts and legal documents

Processing Data

Contract and legal document data

Analysis and Modeling

Deep learning-based AI contract review solution

Fire Recognition Using Drone



Contents of Assignment

Fire recognition project

Processing Data

Fire image data

Analysis and Modeling

Object recognition AI test development using firefighting drones

Time-based IoT Sensor Analysis System



Contents of Assignment

Factory optimization AI

Processing Data

Sensor collection data

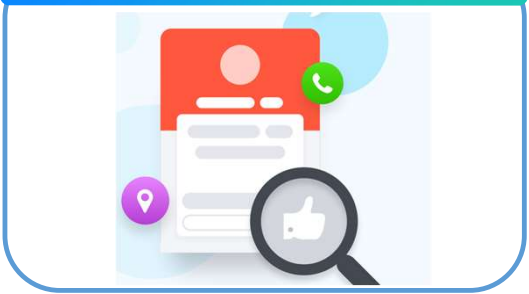
Analysis and Modeling

Data correlation analysis and prediction over time

4. Customers (2/3)

Customers

Student-Academy Recommendation



Contents of Assignment

Academy Recommendation

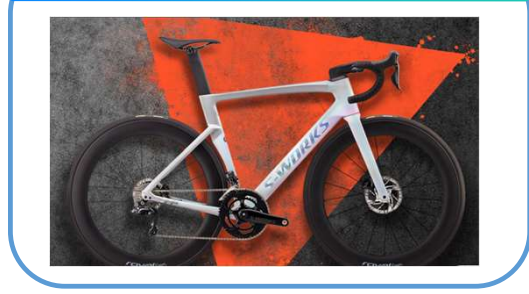
Processing Data

Parents, students counseling data

Analysis and Modeling

Customized matching recommendation system based on student-academy association

Bicycle Parts Price Estimation



Contents of Assignment

Bike parts recognition

Processing Data

Bicycle image data

Analysis and Modeling

Model recognition and price measurement system for each bicycle part

Patient Disease Prediction Model



Contents of Assignment

Patient disease prediction

Processing Data

Patient health data

Analysis and Modeling

Prediction model for early recurrence and complications after lung surgery

Influencer Matching Platform



Contents of Assignment

Custom influencer recommendations

Processing Data

SNS channel data

Analysis and Modeling

Keyword relevance scoring and campaign optimization recommendation system

4. Customers (3/3)

Customers

Children Coding Curriculum Recommendation System



Contents of Assignment

Coding curriculum recommendation

Processing Data

Students' curriculum data

Analysis and Modeling

Curriculum recommendation system for optimal difficulty according to the learner's level

Funeral Recommendation System



Contents of Assignment

Funeral recommendation

Processing Data

Consultation data

Analysis and Modeling

Funeral consultant and funeral recommendation system

AI Recycling Reward Solution



Contents of Assignment

Classification system based on object recognition

Processing Data

Recycled image data

Analysis and Modeling

Object recognition-based recycling auto-classification engine development

Interior Material Damage-Analysis System



Contents of Assignment

Interior material damage estimate

Processing Data

Interior material data

Analysis and Modeling

Image classification based damage, analysis system

**We share all of our customers' AI
implementation journeys.**

Homepage | <https://ds2.ai>

Email | contact@dslab.global

Phone Number | 1670-1728

Address | 05-107, WeWork, 5th floor, 83
Uisadang-daero, Yeongdeungpo-gu,
Seoul, Republic of Korea

DSLAB GLOBAL