

**CONNECTING PEOPLE BEYOND BORDERS  
WITH NAVER**



**NAVER**



# CONTENTS

SERVICE OVERVIEW

A SET OF GLOBAL CHALLENGES

WE ARE NAVER

WORKING AT NAVER

# SERVICE OVERVIEW

Technology should be in our daily lives, not in the lab, and it should not be owned by small groups of people, but by everyone.

With a firm belief in the true value of technology, NAVER brings cutting-edge technologies into our daily lives, transforming them into familiar tools that are easy to use for everyone.



## NAVER CLOVA

An integrated AI service that brings together technologies that utilize the five human senses including speech and image recognition as well as artificial neural network translation and interactive engine



## NAVER MAP

A map service that contains a vast amount of information created from each space, not just paths



## NAVER KNOWLEDGE iN

A knowledge-sharing service on which users post questions and answers



## NAVER

Korea's largest search portal service that links thoughts and interests of various users and creates new opportunities



## WHALE

A new web browser with NAVER's own technologies and know-how



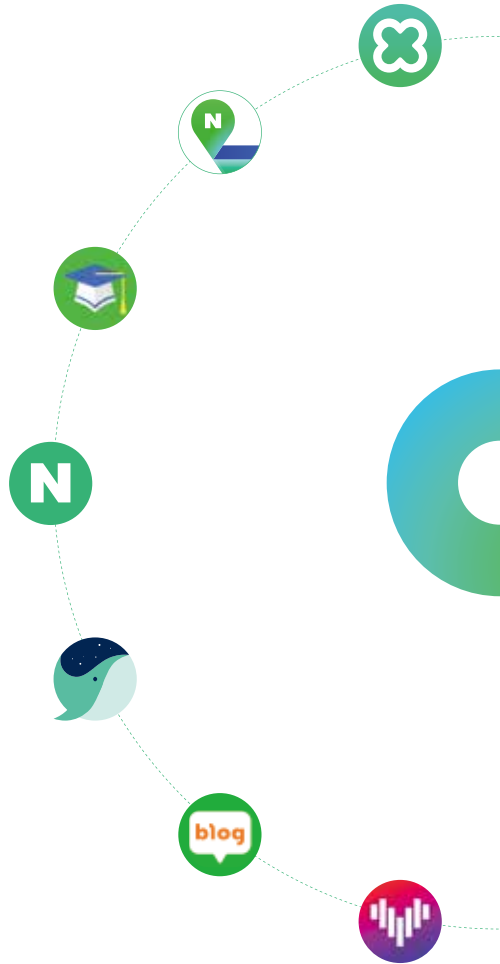
## NAVER BLOG

A service for sharing daily journals, experiences and information as well as for communicating with new people

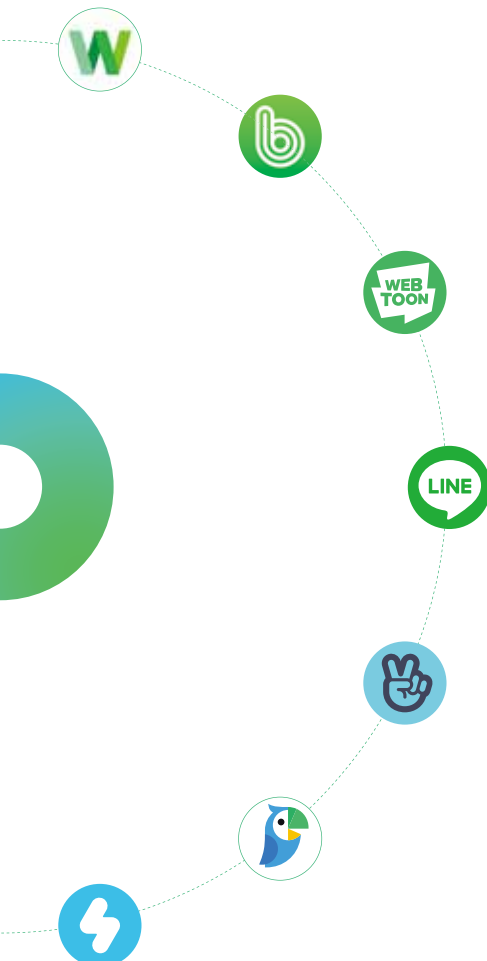


## NAVER VIBE

A music service that recommends music that is perfect for each user based on AI technologies



NAVER had created services to satisfy domestic users for over 20 years, and it has now become a part of daily life enjoyed by users around the world. NAVER will continue to strive to deliver the value of daily life to more people around the world.



### LINE WORKS

A cloud-based service for corporate collaboration that integrates corporate groupware services into a single mobile app



### BAND

A social network service for groups with users from all around the world



### NAVER WEBTOON

A global content service that presents new fun and inspiration every day



### LINE

A global smart portal that provides unique content and communication services such as instant messaging and stickers



### V LIVE

A global live video service that airs real-time personal broadcasts of celebrities



### PAPAGO

An automatic translation service created with NAVER's own technologies such as speech recognition, speech synthesis and machine translation



### SNOW

An augmented reality (AR) camera service that allows users to take pictures and record videos with various effects with face recognition technology



# A SET OF GLOBAL CHALLENGES

Please allow us to introduce you to NAVER's challengers who connect with various people, pioneer new markets, and grow rapidly and delightfully.



## Global AI Research Belt

A research belt, a global technological network that links Asia with Europe, will be built around Korea–Japan–France–Southeast Asia, creating new synergies through active exchanges and cooperation with outstanding researchers, startups and organizations throughout the world with NAVER in the center, and providing opportunities to continuously foster great talents.



## NAVER

**NAVER Corp.**

**Since 1999.06**

CEO Seong Sook Han  
Bundang(Korea)

NAVER enhances its capacity as Korea's top-notch Internet portal by applying advanced technologies to a wide range of services. The company applies AI to improve search quality and enhance the convenience of commerce services such as NAVER Shopping and NAVER Pay. NAVER continues to grow, offering even newer values and opportunities for users and partners.

## LINE

**LINE Corp.**

**Since 2000.09**

CEO Takeshi Idezawa, JungHo Shin  
Tokyo (Japan), Fukuoka(Japan),  
Bundang(Korea)

LINE is provided in 17 different languages in more than 230 countries, marking its presence as a global service for 500 million users worldwide. Recently, it has merged with Z Holdings Corp. that has Yahoo! Japan and financial holding companies as its subsidiaries to rise as the best technological enterprise, infusing its technological edge into the lives of users in Asian countries, including Japan and Korea.

# NBP

## NAVER BUSINESS PLATFORM Corp.

Since 2009.05

CEO Weongi Park

Bundang(Korea)

Regions possessing NAVER CLOUD PLATFORM and its global coverage

Korean region / Korea

Western US region / United States, Canada, Mexico, etc.

Singapore region / Indonesia, Malaysia,

Thailand, Cambodia, Vietnam, etc.

Hong Kong region / Hong Kong, Taiwan, Macao,

Vietnam, Philippines, etc.

Japanese region / Japan

German region / 21 European countries, Africa, Middle East, etc.

NAVER BUSINESS PLATFORM is a specialized IT subsidiary of NAVER that provides global IT services to various subsidiaries of NAVER, including NAVER, LINE and SNOW. The company is also responsible for the operation of Korea's first eco-friendly data center "GAK" and the recent construction of a cloud data center in Sejong City, and "NAVER CLOUD PLATFORM," launched in 2017, has achieved the top position in Korea for public clouds, continuing its new challenge towards the global market.



# WORKS MOBILE

## WORKS MOBILE Corp.

Since 2015.04

CEO Gyuheung Han

Bundang(Korea), Tokyo(Japan)

WORKS MOBILE, which became an independent corporation after being separated from NAVER in 2015, seeks to create a world where customers, businesses, partners and everyone working in the local community are connected and remain close, and grow together along with each other. Based on this vision, the company has launched a work collaboration platform LINE WORKS, and in 2016, its market share ranked first in the business chatting market within two years since its entry into Japan, being acknowledged for its value in the global market. With this as a stepping stone, the company continues to pioneer new markets and strive to bring workers in closer from far and wide.



# NAVER LABS

## NAVER LABS Corp.

Since 2017.01

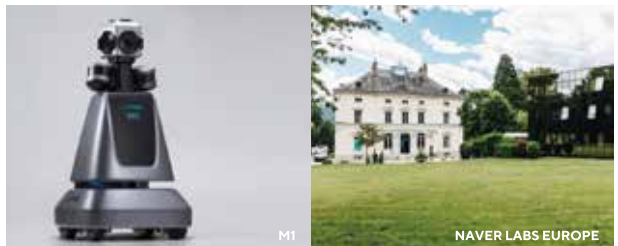
CEO Sangok Seek

Bundang(Korea), Grenoble(France)

NAVER LABS, which began as a technological research organization for NAVER in 2013, has continued to conduct research into future technologies such as AI, robotics and autonomous driving technologies with leading researchers from Korea and Europe. At CES 2019, NAVER LABS successfully demonstrated a 5G brainless robot technology for the first time in the world and acquired a provisional permit for autonomous driving for the first time in the Korean IT industry, thereby taking the lead in internalizing technologies to connect machines, information and people in a natural manner.

## NAVER LABS Europe

NAVER acquired Xerox Research Centre, a global AI research center, in 2017 and it was renamed NAVER LABS Europe. World-class AI researchers from 26 countries continue to publish outstanding research achievements in various fields, including deep learning, vision, natural language processing, and artificial intelligence for robots.





## WEBTOON

### NAVER WEBTOON Corp.

Since 2017.05

CEO Jun Koo Kim

Bundang(Korea), LA(US), Bangkok(Thailand),  
Jakarta(Indonesia), Taipei(Taiwan)

NAVER WEBTOON, which is available in 9 languages in more than 100 countries, is a global service with 62 million users worldwide, including 10 million readers in North America. It combines new technologies such as AR and VR with content to offer a foundation that creates content with new fun and inspiration for both users and creators, it is undergoing transformation into a global platform where diverse writers and readers from all over the world encounter and engage happily.



## SNOW

### SNOW Corp.

Since 2016.08

CEO Chang Wook Kim

Bundang(Korea)

SNOW, which began as a guerrilla project in 2015, has launched not only the SNOW app, but also family apps such as B612, SODA and Foodie, achieving more than 1 billion downloads, and SNOW continues to challenge with its global camera app that offers new delights.

ZEPETO, which allows users to communicate with their own 3D avatars, is a smash hit among teenagers around the world, ranking first in app markets in more than 30 countries.

\*ZEPETO service was spun off into an independent corporation in 2020.



## NAVER FINANCIAL

### NAVER FINANCIAL Corp.

Since 2019.11

CEO In hyuk Choi

Bundang(Korea)

Launched in November, 2019, NAVER FINANCIAL is preparing a variety of online financial platform businesses, ranging from NAVER bankbooks to credit card recommendations, securities and insurance, to make it easier and more convenient for users to experience financial services in their daily lives, and will evolve into a comprehensive asset management platform by expanding into high-involvement financial services such as loans.



# WE ARE NAVER

People enjoy daily updated webtoons while listening to music on the subway on their way to work. People watch live broadcasts of their favorite celebrities, and leave comments. People press NAVER's Green-dot to check nearby restaurants, make reservations and orders with a few touches. People fill their shopping carts while exploring NAVER shopping windows.

Who created these services that deeply permeate into people's daily lives to enrich people's day, and how have they been created?

Behind the services that you are already familiar with, there lie the traces of efforts made by the people at NAVER. The ceaseless efforts of the people at NAVER are combined one after another to give rise to one service.

Then, who is shaping NAVER?



NAVER 20th History Wall Exhibition © Green factory

## **Development**

We research and develop services that deliver new value to users. We experience mass traffic and interaction of tens of millions to hundreds of millions of users, and share our knowledge and experience with our best colleagues to learn and expertise everyday.

"We have massive amounts of data, infrastructure and users to actually apply new technologies and algorithms."

"We can see for ourselves the reaction of a large number of users to the results created by us."

## **Content & Service Planning**

We create the convenience that permeates into people's daily lives. Listening to the voices of numerous users to discover improvements to be made and exerting ceaseless efforts, we add value to services step by step.

"We meet and observe users and get ideas for new services."

"I can plan and market the services that decorate NAVER's main page with my own hands."

## **Design**

We draw designs that portray the voices of users. To enable users to interact naturally without being lost, we predict, analyze, make precise adjustments to positions, and design experiences.

"We play a wide variety of roles throughout each project from design to planning and project management."

"It's rewarding to see my ideas or designs change the lives of many NAVER users."

## **Management Support**

To help the employees of NAVER achieve the best results in the developing and transforming environment, based on our objective yet flexible thinking and specialized expertise, we continue to conduct research to improve multiple systems and come up with the best solutions.

"We can develop our communication skills while communicating with Internal groups, executives, and stakeholders."

"Because the services of NAVER always reinterpret from new perspectives and pursue changes to well-match the market which they are seeking to make entry into, I was able to challenge and grow together while providing support for services that have added up to challenges for NAVER."

# WE ARE NAVER

## DEVIEW

The largest conference for developers in Korea designed to share knowledge, pursue excellence, and grow together. Started as NAVER's internal technology event in 2006, DEVIEW has invited global SW corporate engineers and open-source developers as well as domestic IT companies, startups and vendors to share NAVER's experience and technologies, firmly establishing its presence as an event seeking to grow together.

## NAVER AI Colloquium

An academic event where graduate students, developers and other experts gather to hold seminars and closely discuss the technologies of NAVER. Started as a search colloquium in 2016, the 4th AI Colloquium in 2019 introduced NAVER's technologies in AI-related fields.

## Design Colloquium

An annually-held event of sharing for designers. By sharing the way NAVER designers work and their know-how, and disclosing real project cases, it aims to provide a positive impetus for prospective and current designers. At the third event of the 2019 Design Colloquium, a diverse range of subsidiaries and CICs of NAVER shared their global achievements.

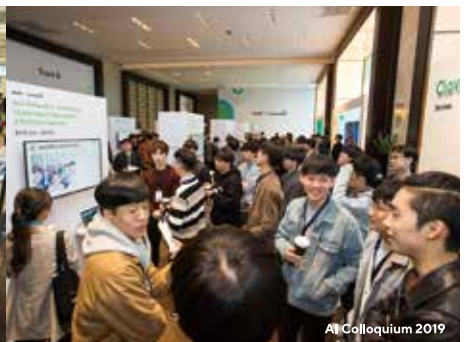
## ENGINEERING DAY

An event where developers share new skills and know-how developed in practice and researches with all other employees.

It introduces almost all of the technologies of the company, including AI, deep learning technology using distributed computing, image video processing technology, and various in-house PaaS.



Engineering Day 2019



AI Colloquium 2019

We share our knowledge and experience with others to grow together.

## **N INNOVATION AWARD**

N INNOVATION AWARD, which was created to find, encourage and share outstanding technologies of the company, annually selects top 3 technologies by service development track/research and development track through a technical strategy meeting and employee votes, and pays up to KRW 20 million in prize money.

## **HACKDAY**

The event is held for two days and one night completely unveiling ideas that will enhance user value, including new service proposals and improvements to existing services. Participation is open to everyone, including developers, planners, designers, and other staff, and the ideas adopted are actively supported for their application to real-world services.

## **TECH TALK**

A technology sharing event that is held 3-4 times a week for developers to exchange information. Seminars with outside experts are held on various topics and experiences in research and development are shared to expand the technological base of company members. It also serves an opportunity for members to continuously share their experience to prevent themselves from repeating the same mistakes.

## **Meet-up**

Periodically held as a casual technical meeting to communicate and share experiences with each other by technological subject (Android, iOS, front-end, etc.). In addition, the technological trends are identified and applied experiences are shared through frequent gatherings by technological field held every other month or every quarter, allowing the developers who carry out similar tasks to form a network.



# WORKING AT NAVER

Most of our successes originate from our ceaseless examination and addressing the inconvenience of users that could be inadvertently overlooked.

If we listen carefully to the voices of our users with affection and attention, users let us know how to stay ahead of the market.

Users serve as the most integral standards and rules for us.

The services we create affect the daily lives of many people.

Therefore, no matter how minor each task may seem, we feel the weight of responsibility embedded in it, to find the meaning in each and every task of ours, and carry out the work with our names attached.

## “Ranked 2nd in R&D spending versus sales”

NAVER spends more than 25% of its operating profit on R&D, and is putting a lot of effort into the technological researches to raise the value of lives.

R&D spending versus sales investigation (CEO score, 2019)

## “74.7% share of Korea’s search queries”

NAVER has 74.7% share of search queries, holding the largest share in the domestic search market.

164 million global LINE users, 260 million SNOW users, and 108 million ZEPETO subscribers

NAVER Inside data (2019)

## “Ranked 4th in market cap”

In 2020, NAVER’s market cap exceeded KRW 30 trillion, becoming the fourth-largest in Korea.

This means that NAVER is highly valued for its potential for growth.

Domestic market capitalization ranking (based on KOSPI, 2020.05)

However, in the fast-changing IT industry, one success does not at all imply eternal success.

The service we create is not a finished final product, and it is like a life form that constantly transforms according to users and markets.

We do not reverse or drag along behind the changing tide, but go with the tide moved by users and markets and constantly change out services.

### **“Highest rating in the mutual growth index evaluation for 3 consecutive years”**

NAVER, which has conducted various activities such as project flower for sustainable growth of small business owners and creators, and mutual growth with partner companies, has received the highest rating in the mutual growth index evaluation for three years in a row.

Mutual growth index evaluation (Mutual growth committee, 2019.06)

### **“Selected Forbes 100 Innovative Companies 5 years in a row”**

In 2018, NAVER was ranked sixth as Fortune's 'Future 50' company.

This rank is even higher than global IT companies such as Netflix, Alibaba and Amazon.

In 2018, the company was named the 9th most innovative company by Forbes, and has continued to make its name known five years in a row.

NAVER has been acknowledged for its innovation, potential and growth potential in the global market.

Future 50 (Fortune, 2018) / World's Most Innovative Companies List (Forbes, 2018)

# WORKING AT NAVER

## People & Culture

### The best colleagues, the best experts

NAVER offers a place where its members share the best technology and their experience to grow along with their colleagues. NAVER is the place where people are excited about finding meaningful tasks and achieving challenging goals.

### Sharing, Collaboration, Growth

To share the experience and grow together, we leave a number of opportunities open to all, including the internal events such as TechTalk, Meet-up, On/Off code review, and HACKDAY, as well as external events such as DEVIEW and Colloquium. Together, we share our experiences of success and failure to we grow and move forward towards success.



NAVER 20th Anniversary Event (2019)



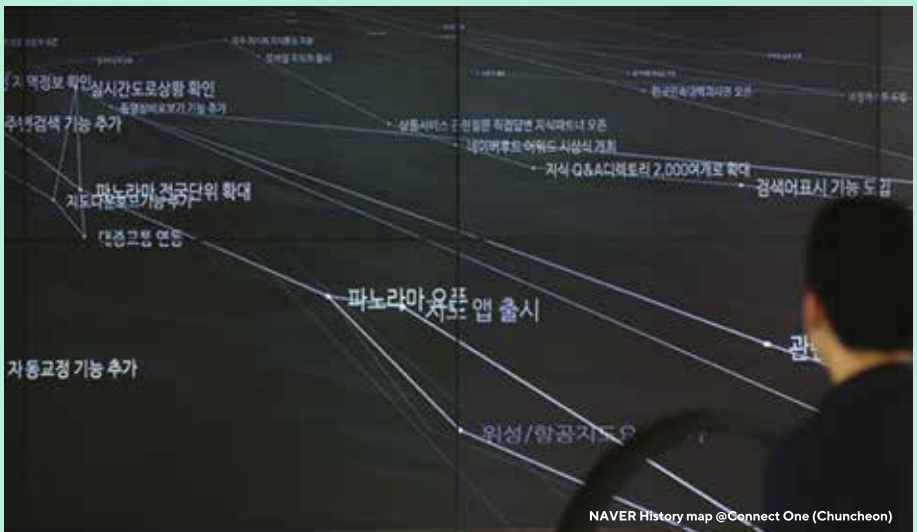
## Interaction & Data

### Real-time feedback from a great many users

30 million users visit NAVER Mobile main page. The experience in planning and developing Korea's largest platform/service, the experience seeing what we drew showing on the homepage of NAVER, we learn and grow each day through user response and feedback.

### New data created every second

Everyday on NAVER, 7,400 questions are searched, 2,500 emails are sent per second. Every second, users create and use enormous amount of data. NAVER will manage these data well, and will use it as a foundation of future technology, as a opportunity of innovation, and as a source of infinite economic value.



## **NAVER BENEFIT**

NAVER, where 'people' are at the core and take priority.

The performance and growth of each and every member lead to the growth of NAVER as a whole.

To ensure that its employees can fully focus on their work and growth without any other concerns, NAVER offers stock option for all employees, differentiated work environment, health care for employees and their family members, and refresh program among many others.

Special benefits are given to people at NAVER.

See them for yourself.

## Work environment

### Flexible working scheme

Instead of regular commuting hours, the culture of individuals managing their own working hours and taking responsibility for their work have been fully established. Each individual can choose the time he/she can work most efficiently.

### Personal budget for office equipment

Individuals are paid between KRW 1 to 1.5 million each year to select the office equipment that is the most suitable for their work to flexibly replace them according to the given budget.

## Health care

### Home doctor & core exercise center

A hospital is located within the company where the employees can receive treatment/aid from professional medical staff whenever they are sick or need health advice.

The core exercise center in the Company offers an intensive care of musculoskeletal disorders in body parts such as neck, shoulders, and lower back. Here, the employees can benefit from group exercises and 1:1 care to correct their wrong posture habits that cause pain.

### Psychological counseling

NAVER offers links to psychological counseling agencies and provides 80% of the counseling fees to ensure that its employees can receive psychological counseling without any pressure, from a reliable counseling agency when they are stressed or having a hard time.

### Full medical checkup

Precise medical checkups are provided free of charge to all employees of NAVER. One of their family is also eligible to receive a medical checkup every other year.



## Healthy food

### Breakfast

Fresh breakfasts are served every day so that employees can start their morning with good conditions.

### In-house restaurant, café and bakery

Employees can enjoy a variety of menu items for their lunch and dinner, fresh coffee and freshly squeezed juice, freshly baked bread and even simple snacks whenever they are hungry.

## Support for self-development

### Support for global languages

With the increased number of services that mount on challenges to conquer global markets, NAVER provides up to KRW 200,000 per month for the language education of their choosing. (Up to KRW 2.4 million per annum.)

### Graduate school education

For the growth of its employees after joining, NAVER offers courses linked to the nation's leading graduate schools. (An AI-related course will be available in connection with KAIST.)

### NAVER service experience support

NAVER offers monthly coupons for NAVER services, such as NAVER Pay points, NAVER WEBTOON, VIBE, CLOUD, Audio Clip and SERIES ON, to ensure that the employees can try out their own services.

## Support for rest and breaks

### Refresh plus vacation

Two years after joining the company, there will be an additional 15 days of vacation for employees to enjoy sufficient rest and recharge.

### Exclusive recreation facilities

High-end exclusive recreation facilities are available at low cost across the country for exclusive use by our employees.



## Support for living

### Intracorporate loans

To assure a stable living environment, NAVER supports interest on loans through linked banks. (1.5% interest for a KRW 100 million loan.)

### Personal work support benefit

NAVER provides a certain amount of money every month for a smooth job performance. Up to KRW 1.8 million is provided per month for communications and third-party content fees.

## Family care

### Daycare center

NAVER runs the best daycare center in Korea where moms and dads can leave their children without any worries until evening throughout their working hours.

### Accident insurance

To be relieved of any concerns about diseases or accidents, medical and screening expenses for major diseases and disorders are provided to employees themselves and their immediate family members.

## Stock options for all employees

### Stock option program

To provide an opportunity for the company's growth to leads to the individual growth and vice versa, and to offer an opportunity for its employees to consider the services, businesses and investments in the long-term perspective, NAVER currently renders a program that issues a stock option for a certain quantity of shares to all employees who have been employed by the company for at least one year.



# RESEARCH FIELDS

## NAVER

### Clova research fields

Machine Learning / Deep Learning / NLP / Dialogue / Speech /  
Audio Signal Processing / Voice Synthesis / Computer Vision /  
Recommendation / Music Information Modeling /  
Video Understanding / Financial AI etc.

### Search related fields

Search Relevance / Personalized Product and LocalSearch Modeling /  
User-generated Content Analysis / Text Mining /  
Image and Video Content Analysis / Web Crawling /  
Traffic Analysis and Distributed High-scale Search System Engineering etc.

## NAVER LABS

### Robotics

Robot System Design & Control / Robot Vision & Perception /  
Human-Robot Interaction etc.

### Vision for Autonomous Machines

Mapping & Localization / Perception / 3D Vision / Image Processing /  
Machine Learning / Segmentation / Image Retrieval /  
Computational Photography / 3D Geometry / Structure from Motion /  
Multi-View and Stereo Vision / Image Enhancement /  
Model Compression / Visual Odometry / Visual SLAM /  
Object Detection / Multi-Object Tracking / Sensor Fusion etc.

## WEBTOON

Machine Learning / Deep Learning / Computer Vision /  
End to End Style Transfer / Super Resolution / Image Synthesis /  
Auto Colorization / Shading, Lighting / DeNoising / Action Recognition etc.

## SNOW

### Vision

Machine Learning / Deep Learning / Computer Vision /  
Recommendation / Image Enhancement / Inpainting / Image Synthesis etc.

### Graphics

Shading, Physically based rendering, 2D/3D rendering,  
Non-photorealistic rendering, Particle rendering, 2D/3D Animation,  
Digital image processing, Rendering performance optimization,  
Physics engine integration, Computer vision integration etc.

## NAVER FINANCIAL

Credit Scoring / Text Clustering / Recommendation & Targeting

# ENGINEERING FIELDS

## NAVER

Server / Client / iOS / Android / Front-end / Distributed System /  
RDBMS / Infrastructure / Security / Performance profiling /  
Data visualization / Test Automation etc.

## WEBTOON

Server / Client / Android / iOS / Front-end /  
Image-PSD-ePub-Video Process / RDBMS / NoSql / Hadoop / HBase /  
Impala / Spark / Data Visualization / Performance Profiling /  
Test Automation etc.

## NBP

### IT Infra (Cloud included)

Server / Network / Contents Delivery Network / Security / Storage /  
DataBase / Internet Data Center / Enterprise Information System /  
Development etc.

- System Hardware / Software
- Operation / Provisioning / Monitoring / Incident Mgmt.
- Troubleshooting / Performance Engineering / Optimization / Architecting
- Data Analytics / Machine Learning / Artificial Intelligence
- Programming & Debugging

## WORKS MOBILE

### Service-related

Spam-filtering / Keyword search / Message Bot. / Voip / Screen Share /  
Translation / File Management / Data Protection / Authentication /  
Authorization / Auth / Access Control / Mobile Device Management /  
3rd party Eco platform / Global Architecture

## SNOW

### Service-related

- Camera / Image / Video Editing / Camera 2 (Android)
- Skin Smooth, Filter, Effect, Image Processing, 3D Rendering
- Face / Hair / Body Recognition, Segmentation, Image Enhancement
- AI recommendation, Deep Learning
- OpenGL, OpenCV, ML Kit, Metal, AR
- Massive concurrent data processing
- Massive concurrent message delivery

## NAVER FINANCIAL

Server / Client / Android / iOS / Front-end  
RDBMS / NoSQL DB / Distributed System / Network  
Hadoop eco-systems



If you would like to learn more  
about NAVER

[www.navercorp.com](http://www.navercorp.com)



If you are curious about the  
latest news of NAVER

[blog.naver.com/naver\\_diary](http://blog.naver.com/naver_diary)



We look forward to your  
participation  
in our global challenges.

[recruit.navercorp.com](http://recruit.navercorp.com)





**UNLEASH YOUR POTENTIAL WITH NAVER**