VinAi

INTELLIGENCE FOR TOMORROW, TODAY

https://www.vinai.io/
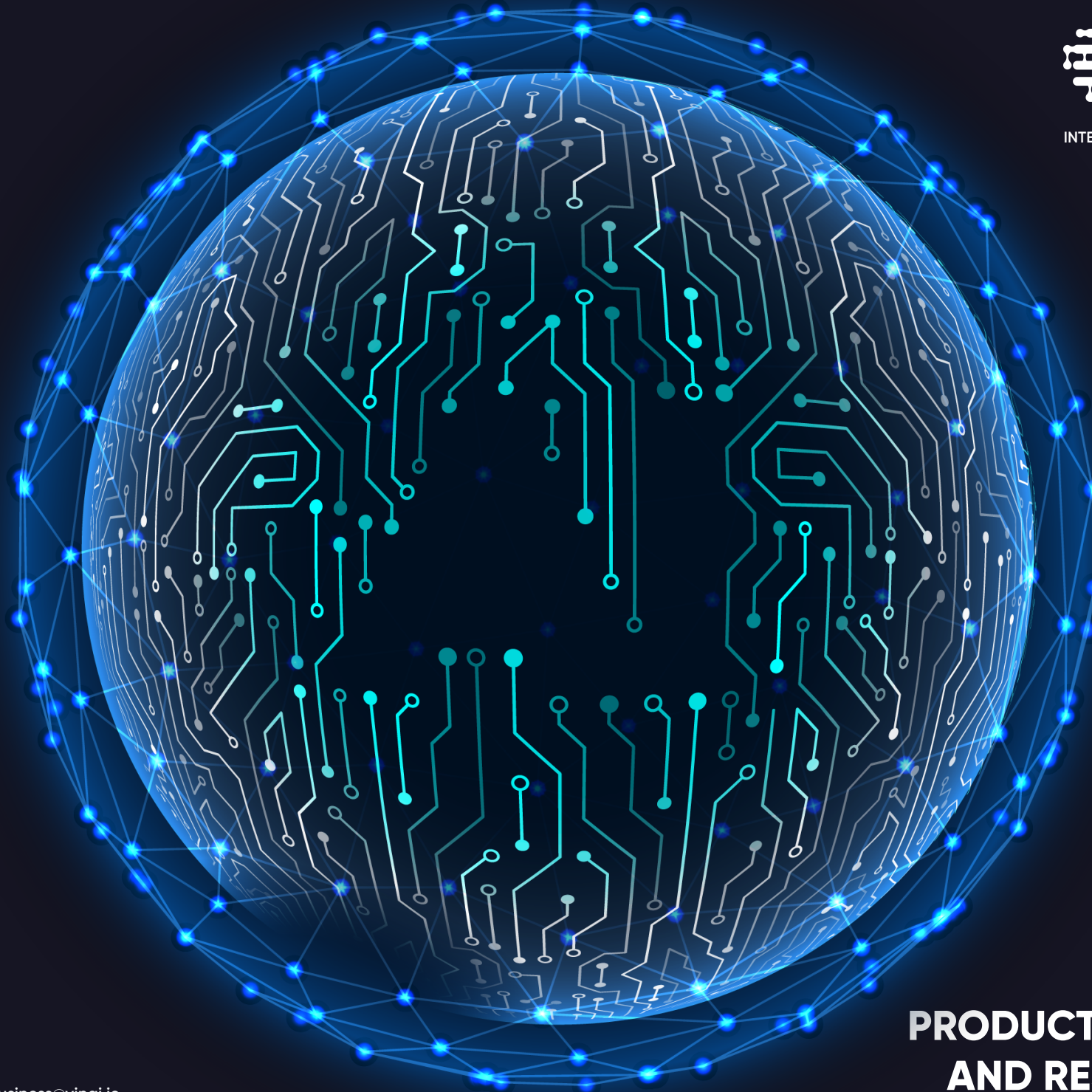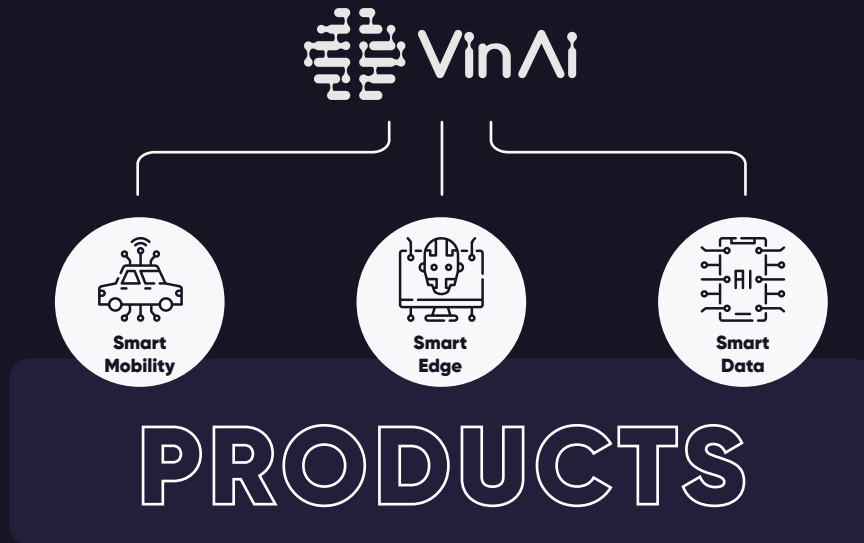
business@vinai.io

PRODUCT PORTFOLIO AND RESEARCH LAB

Democratize and bring AI to life

Established in 2019, VinAI is one of the world's top 25 AI research-based companies with a myriad of practical research projects. Headquartered in Hanoi (Vietnam), VinAI spans the globe with its tech hub presence in the United States and Australia. Bringing together 200 high-profile researchers and engineers, VinAI sets to transform its state-of-the-art AI research technology into products and services that solve real-world problems.

We are driven by a clear vision that delivers modern, impactful and comprehensive solutions, complemented by a stream of innovations from research.
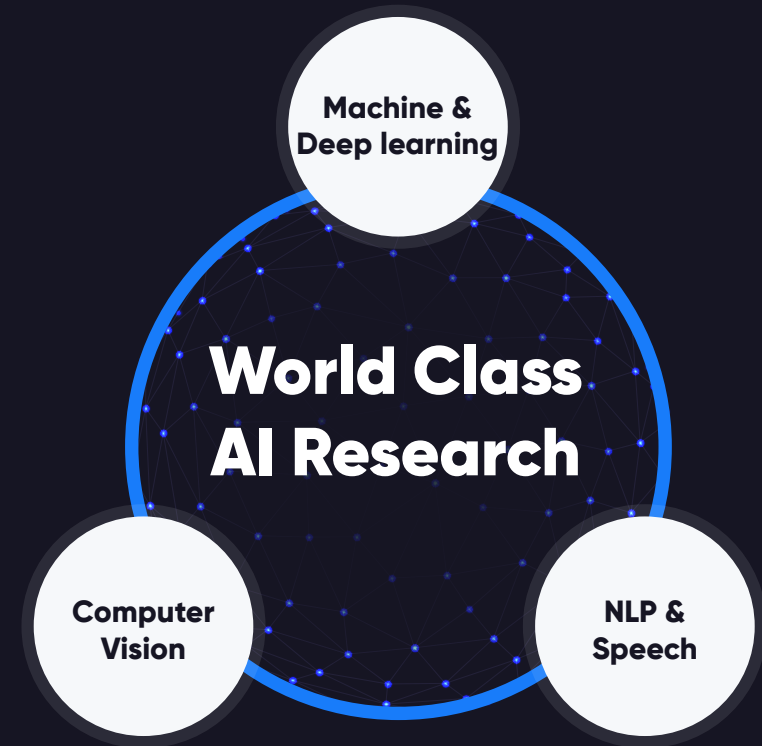
VinAi

Smart Mobility | Smart Edge | Smart Data
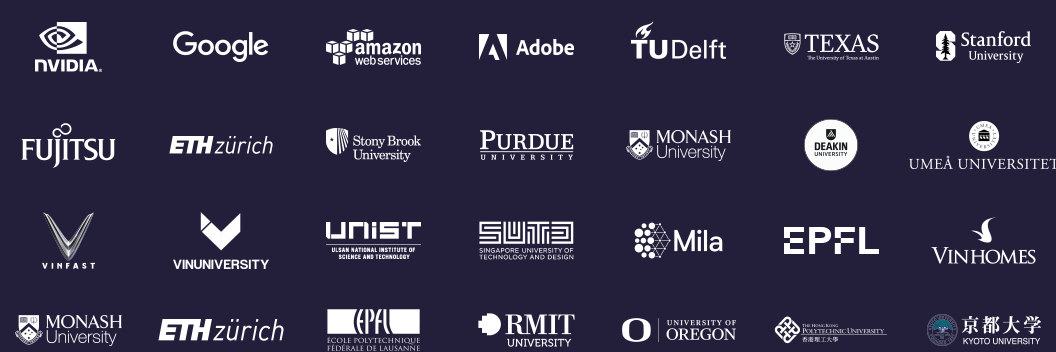
PRODUCTS

Our Research Lab

Focusing on Machine Learning, Computer Vision, and Natural Language Processing, our research aims to address fundamental problems in these areas and develop practical methods that enable impactful applications.

Machine & Deep learning

World Class AI Research

Computer Vision

NLP & Speech

Our offices and Tech hubs

San Francisco, USA

Hanoi, Vietnam

HCM City, Vietnam

Melbourne, Australia

Our Global Collaborators

NVIDIA. | Google | amazon web services | Adobe | TUDelft | TEXAS The University of Texas at Austin | Stanford University

FUJITSU | ETH zürich | Stony Brook University | PURDUE UNIVERSITY | MONASH University | DEAKIN UNIVERSITY | UMEÅ UNIVERSITET

VINFAST | VINUNIVERSITY | UNIST ULSAN NATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY | SUTD SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN | Mila | EPFL | VINHOMES

MONASH University | ETH zürich | ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE | RMIT UNIVERSITY | UNIVERSITY OF OREGON | THE HONG KONG POLYTECHNIC UNIVERSITY 香港理工大學 | 京都大学 KYOTO UNIVERSITY

SMART MOBILITY

With our next-generation smart in-vehicle solution that combines in-car monitoring and surrounding sensory systems, we aim to transform the automotive industry by making driving safe and comfortable with AI.

DRIVER AND OCCUPANCY MONITORING SYSTEM

Keep your jouney safe with our in-cabin solution, using high-performance cameras and AI to analyze driver behavior patterns to prevent driving errors.

Main features

- Fatigue and Drowsiness Monitoring
- Smoking Detection
- Attentiveness Monitoring
- Phone Usage Detection

Advanced Features

- Car theft prevention
- Occupant classification (child/pet/objects, left behind...)
- Advanced behaviours and emotion recognition
- Integration of automatic mirror adjustment, advanced AR HUD support, and voice assistant system
- Driver health monitoring and alcohol detection

360 SURROUND VIEW MONITORING

Reinventing the occupants' experience by offering complete awareness of the situation around the car and identifying obstacles in "blind" areas.

Main Features

- Front view, rear view with static and dynamic guideline Top view with trajectory guideline
- Auto on/off by changing gear, speed
- Tire view
- Safety warnings (from CAN message)
- Touch-based 3D 360 surround view

Advanced Features

- Narrow street measurement & guideline
- Camera auto-calibration
- Low light condition and bad weather support
- Collision warning and unsafe door opening
- Parking slot, free space detection, parking guideline
- Transparent inside-out view

Why Us

- Highly accurate AI model: Rank 6th NIST 2020
- Adapted with multiple camera placement options (Steering Column, Instrument cluster, Center Stack)
- Multiple hardware platforms and SoCs support
- Continuous improvement of advanced AI models and features
- AI-enabled safety functions and enhanced driving experience
- Best-in-class image stitching quality, with high performance and low power consumption
- Flexible and portable on different platforms and systems, adapted for high-price range and low to mid-price range vehicles

SMART EDGE

Creates ultimate safety and availability for communities and businesses by transforming normal cameras into smart, cost-effective security systems with our advanced AI algorithms

Mature Features

Access-Care
- Access control
- Anti-spoofing face recognition algorithm for faces with and without masks

Retail-Care
- VIP recognition and returning customer identification
- Traffic heatmap and people counting
- Customer activity analysis

Advanced Features

Area-Care
- Multi-camera person re-identification and tracking
- Unattended object detection
- Anomaly detection
- Vehicle detection and license plate recognition

Process-Care
- Compliance analysis
- Efficiency evaluation and monitoring

SMART DATA

One-stop shop solution boosts data efficiency with full AI-lifecycle platform and services

Full life-cycle AI platform

Our AI-assisted smart platform speeds up development of data-centric AI products at an order of magnitude

Mature Features

- Full AI lifecycle: data selection and annotation, model development, validation, deployment and monitoring
- Off-the-Shelf datasets collections, data augmentation and synthesis*
- Few-click parallel & distributed training, auto-hyperparameter tuning*
- Restful APIs, data security & privacy compliance
- Efficient collaboration to share code & pipelines*

Advanced Features

- ReneX: smart rapid model development and model refiner platform. Smart query and active learning to save annotation costs and accelerate performances*
- Smart Visual Debugger to isolate corner cases, understand failure modes, poor label discovery
- Robust model deployment with batch/real-time inference and system operation tracking*

Smart Data Annotation as a Service

With our AI technology and high-capacity team, we are changing the annotation game

35%
higher productivity compared to the industry leaders

30-40%
cost effectiveness compared to the global competitors

2 million+
annotated frames completed

1000+
annotators and ready to scale more

Why Us

- Supports many AI features including face recognition with a high level of accuracy
- Uses optimized AI algorithms for cost effective installation and operation
- Provides a full suite of deployment platforms
- Protects privacy and ensures compliance based on edge computing

- Portal management system for clients and annotators
- Advanced AI-assisted auto-labelling tools to significantly accelerate annotation
- Quality control with managed services
- AI to select the most valuable data to annotate**

*based on our internal benchmark exercises against one of the top global annotation services on 2DOD, 2D semantic seg tasks
** progressing in the product roadmap