aetherAI

LEVERAGING AI EXTRACT INSIGHTS

Unleashing the Power of AI for Medical Imaging

aether Slide

Digital Pathology System in AI Era

AI-Powered pathology image management system that simplifies your daily workflow

Pathologist-Centric Workflow Design

Dedicated to improving efficiency and productivity, aetherSlide is designed around pathologists' daily workflow. Workload and progress is easily monitored, with AI at your side to help prioritize work and focus on the most important tasks.

Organized Workspace

Slides are organized into studies for daily pathology workflow. Users can define their own ways to organize daily worklist. Patient-centered archiving allows comprehensive review of case history, enabling in-depth interpretation and better-informed decision making.

Collaborative Viewer

aetherSlide's web-based viewer allows multiple users at different locations to view the same slide in sync. User actions, including panning, zooming and annotation, are synchronized through the web.

Vendor-Neutral Archiving

aetherSlide is compatible with almost every whole slide image file format on the market, including .svs, .ndpi, .scn, .mrxs, .bif, .tif, .tiff.

Work Allocation and Assignments

In an effort to increase administrative efficiency, aetherSlide is able to automate work allocation and assignments based on user-defined rules and operations workload planning.

Intuitive Productivity Tools

aetherSlide provides slide navigation tools co-designed with pathologists that feature ergonomic human-computer interaction, intuitive hotkey design and AI-powered diagnostic support. aetherSlide will make you fall in love with digital pathology.

Seamless Integration with AI

In aetherSlide, AI is integrated into every aspect of pathology workflow where it can be helpful, from slide quality control, case triaging, cancer screening, to IHC quantification. Pre-trained AI models can be fine-tuned using new data and annotation.

Robust System Management Architecture with Scalable System Design

Superior HIS/LIS Compatibility

With its modular RESTful API (Application Programming Interface) and HL7 compliance, aetherSlide is designed to work seamlessly with existing information systems including HIS, LIS and PACS.

High Availability & Load Balancing

aetherSlide employs state-of-the-art web backend architecture (such as Kubernetes) to prevent single points of failure and provide load-balancing to maintain system performance under increased workload.

Cost-Efficient Scalable Storage Solutions

Software defined storage specifically tuned for digital pathology application provides easy, cost-effective, and continuously expandable solutions for ever increasing storage demands.

Slide Quality Monitoring

aetherSlide offers slide quality monitoring to report image blurring, slides with bubbles, tissue folding or incomplete scan. Such data can be used for further scanning process optimization.

System Self-Monitoring

The system will actively report its health status, storage and database backup condition on a daily basis to enhance safety and reliability. If there is any error or abnormal value, the system will automatically notify the administrator in real-time.

System Usage Monitoring

aetherSlide provides user statistics including user login activity, slide reviewing and uploading records. The system also provides event logs for the administrator to track and monitor the system status easily.

Data Life Cycle Management

aetherSlide adopts data tiering mechanism to reduce primary storage needs and related costs. The system will divide data into three tiers (Hot, Warm, Cold data) based on data's generated time, requested frequency and requested time to ensure the best-use of storage and efficiency in data retrieval.
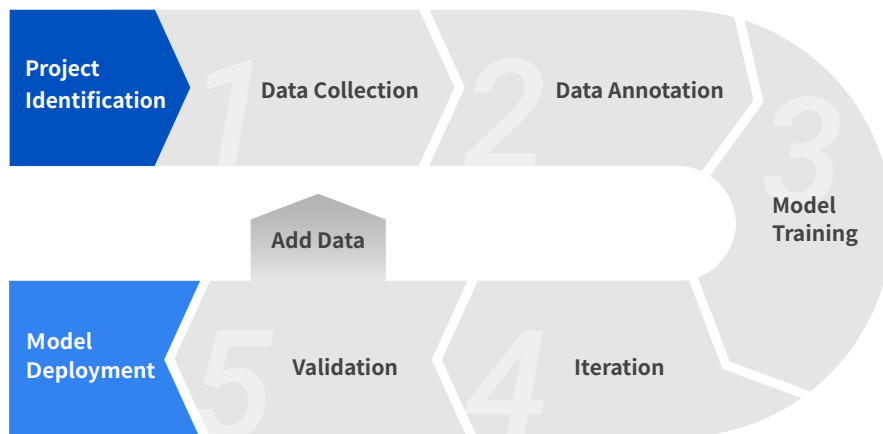
aetherAI
Digital Pathology AI Services

Bringing healthcare to the next level

aetherAI seeks to leverage deep neural networks' superior ability in image recognition to elevate the standard of pathology diagnosis. With its in-house data science team, aetherAI partners with top medical centers in creating a wide array of AI pathology diagnostic support applications. aetherAI's offerings range from slide quality control, case triaging, differential cell counting, to IHC quantification. aetherAI has also developed a unique pipeline that uses the entire whole slide images for neural network training, drastically reducing the effort in annotation typically required in a patch-base approach. In addition to serving healthcare institutions, aetherAI also offers end-to-end digital pathology AI services for biotech and pharmaceutical industries.

AI Model Development Life Cycle

Project Identification

1 Data Collection

2 Data Annotation

3 Model Training

Add Data

Model Deployment

5 Validation

4 Iteration

aetherAI Applications

Case Triaging

Cases can be sorted according to disease risks. Slides with higher risks can be sorted to the front, allowing pathologists to focus their efforts and prioritize the daily workflow, to reduce time efforts in a heavy workload.


Cancer Screening

Finding small cancer cells or cancerous lesions in a whole-slide image can be time consuming and challenging. Cancerous lesions can be detected and highlighted by AI to improve efficiency and minimize risk of misdiagnosis.

IHC Quantification

IHC is widely used for diagnosis of different types of cancers. However, the results have been known to be highly variable. Our quantification AI models are able to detect individual cells by their nuclei and distinguish their staining status, giving an accurate quantification result at cellular level, to increase inter- and intra-operator consistency.

About aetherAI

aetherAI is dedicated to providing solutions for digital pathology and AI-powered diagnostic support. The mission of the company is to use state-of-the-art technology to elevate the standard of pathological diagnosis and improve the quality of care. Our work focuses on digital pathology transformation, medical image AI adoption, and enterprise service for pharmaceutical and biotech companies.

aetherAI

- Digital Pathology Transformation
- Medical Image AI Adoption
- BioPharma Service
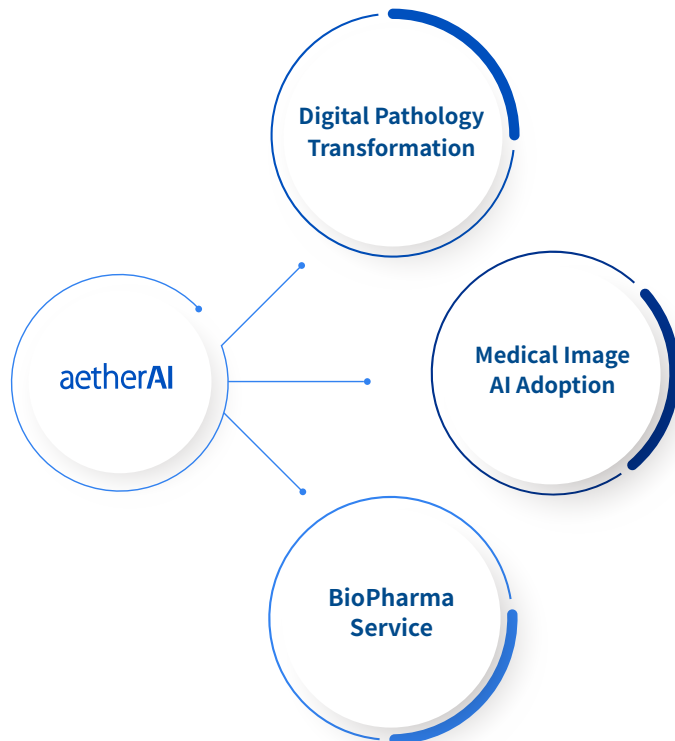
aetherAI | Hema

Automatic Bone Marrow
Smear Differential Counts

aetherAI | IHC

Immunohistochemistry
Quantification & Analysis

aetherAI | Endo

Real-time Colorectal
Polyp & Adenoma Detection

aetherAI | LDCT

Lung Nodule Detection
with Low-Dose CT

Our Partners

UPMC — University of Pittsburgh Medical Center

國泰綜合醫院 Cathay General Hospital

TAIPEI MEDICAL UNIVERSITY 1960

長庚紀念醫院 Chang Gung Memorial Hospital

慈濟

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三軍總醫院 TRI-SERVICE GENERAL HOSPITAL

中山醫學大學附設醫院 CHUNG SHAN MEDICAL UNIVERSITY HOSPITAL

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Awards & Recognitions

GTC Inception Award	NVIDIA GTC TAIWAN 2018
Meet Neo Star Top Prize	Meet Taipei 2018
Taiwan 10 Coolest Tech Startups	Ministry of Science and Technology 2019
Business Startup Award	Ministry of Economic Affairs 2019
100 MVP Managers	Managertoday 2019
Prominent Enterprise Award	Taipei City Government 2020