byteLAKE

AI Solutions

Manufacturing, Automotive, Paper, Chemical, and Energy sectors

Partnership with Intel

byteLAKE @ Intel

- **RRK / RFP Ready Kit**
  - ➤ Storefront: https://www.intel.com/content/www/us/en/partner/showcase/storefront/a5S3b0000002k8EEAQ/bytelake.html
  - ➤ Playbook: Intel® IoT RFP Ready Kit Solutions Playbook (Jan'23 edition, page 62)

- **AI in Production**
  - ➤ https://www.intel.com/content/www/us/en/internet-of-things/ai-in-production/partners/bytelake.html

- **AI Builders**
  - ➤ Intel® AI Builders - Membership Partners (search: byteLAKE)

Intel & byteLAKE publications

- **Intel AI**
  https://twitter.com/IntelAI/status/1590751152315854854?s=20&t=iKEyWR9qYB7cqXlm32QkWw
  (joint promotion of byteLAKE's CFD Suite)

- **Intel's newsroom**
  https://www.intel.com/content/www/us/en/newsroom/news/ai-helps-speed-papermaking-process-europe.html
  (Cognitive Services for Paper Industry)

➤ Follow-up article: https://www.insight.tech/retail/paper-mills-press-on-with-ai-visual-inspection

- **Intel Software / Inside AI People series**
  https://youtu.be/bUt9J7FMyVs

- **Case Study**
  https://www.intel.com/content/www/us/en/data-center/idc-bytelake-case-study.html

➤ Follow-up article: https://www.insight.tech/industry/applying-industrial-ai-models-to-product-quality-inspection

Products optimized for Intel technologies

Products optimized for Intel technologies

intel.com/content/www/us/en/internet-of-things/ai-in-production/partners/bytelake.html

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byteLAKE

byteLAKE

Software Provider

ABOUT THIS PARTNER AND PRODUCT

- Products: byteLAKE's Cognitive Services*, byteLAKE's CFD Suite* (AI-accelerated CFD)
- Industry: All
- Targeted Geographies: North America, Europe, South America, Asia Pacific and Japan, Middle East and Africa
- Use Case: All

byteLAKE is an AI & HPC software company developing AI-powered solutions for enterprises. The company offers both products and services, enabling innovative, AI-powered automation and data-driven, proactive operations across various industries i.e. AI-assisted Visual Inspection and Big Data analytics for manufacturing, AI-accelerated Computational Fluid Dynamics, AI for Industry 4.0, workflow and document processing automation etc.

byteLAKE's Cognitive Services* is a collection of AI models designed to address Industry 4.0 needs. Each AI model has been designed and trained to be razor-focused on specific industry tasks., ensuring maximum accuracy

Key features include:

- **AI-assisted visual inspection** for efficient quality or quantity of products monitoring as well as industrial process monitoring.
- **AI-powered Big Data / IoT sensors data analytics** to find trends, enable predictive maintenance, and answer questions like why something happens, what will likely happen, or to find the collective meaning of the data acquired through various sources.

*Note: byteLAKE's Cognitive Services is also available as a special customization for Paper Mills.*

Wet Line Detector for Paper Mills automates detection and measurements of the so-called wet line. This module helps reduce costs, expedite visual inspection and avoid unplanned downtime in paper production. Available as a complete end-to-end solution, including edge components (hardware computing units, cameras), software license, integration services or guidelines as well as post-deployment customer care.

byteLAKE's AI Products

Cognitive Services
Advanced quality inspection and data insights.

Predictive Maintenance
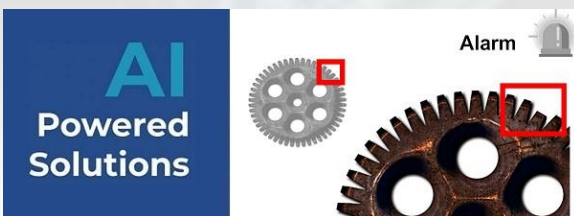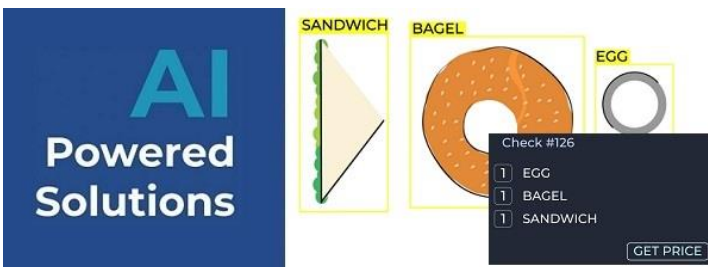

for Manufacturing

for Automotive

for Paper Industry

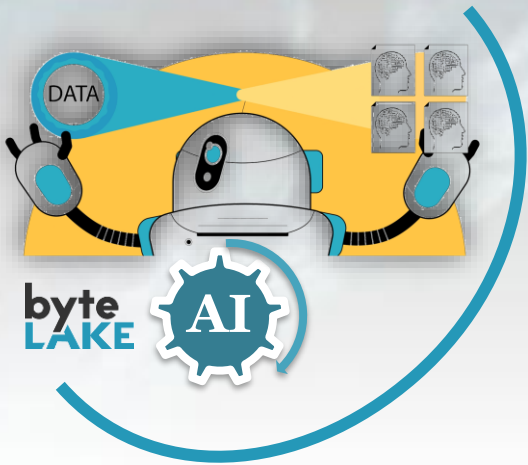Data Insights

Cognitive Services for Restaurants
Self-checkout and object recognition.

CFD Suite
AI-accelerated Computational Fluid Dynamics.

Performance & Scalability

Maximum Performance

AI-accelerated CFD

Edge AI

Up to 25x faster

Always optimized for the latest hardware available.

(*) Performance enhancement achieved through the optimization of byteLAKE's Cognitive Services with Intel® OpenVINO™, Intel® DL Boost Vector Neural Network Instructions (VNNI), and others.

Performance benchmark (Intel® CPUs & GPUs 2024): (soon)

Performance benchmark (Intel® CPUs, 2024): bytelake.com/en/download/4395/

OpenVINO™ benchmark: bytelake.com/en/download/4067/

AI Training Performance on Intel's® latest CPUs, GPUs (soon)

Scalability report, latest CPUs and GPUs (2024): (soon)

AI Training Performance on Edge Server: bytelake.com/en/download/4018/

Scalability report (2021): bytelake.com/en/download/4013/

AI-accelerated CFD in Action
(CFD Suite's Fall'23 Update)

AI-ACCELERATED CFD

CFD Suite

10X Speedup Faster Time to Insights — **99%** Accuracy with AI

43X Speedup Faster Time to Insights — **90%** Accuracy with AI
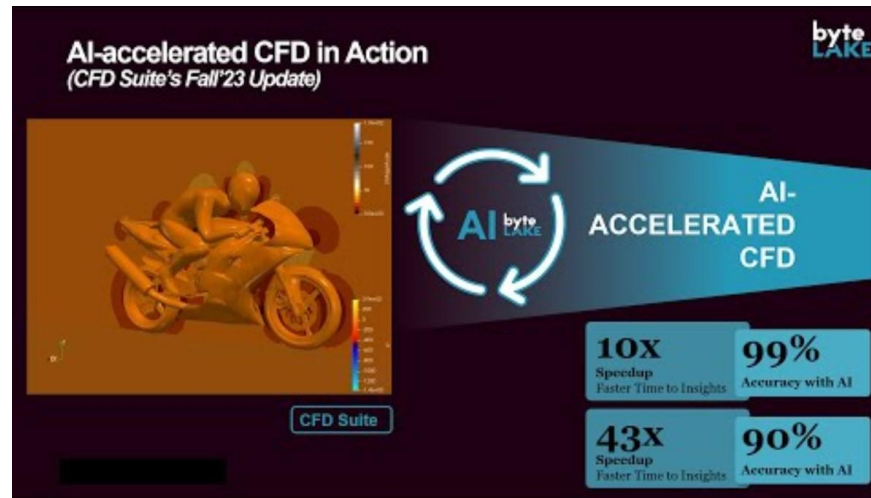
Watch on YouTube: youtu.be/X8OKIPnj8vc

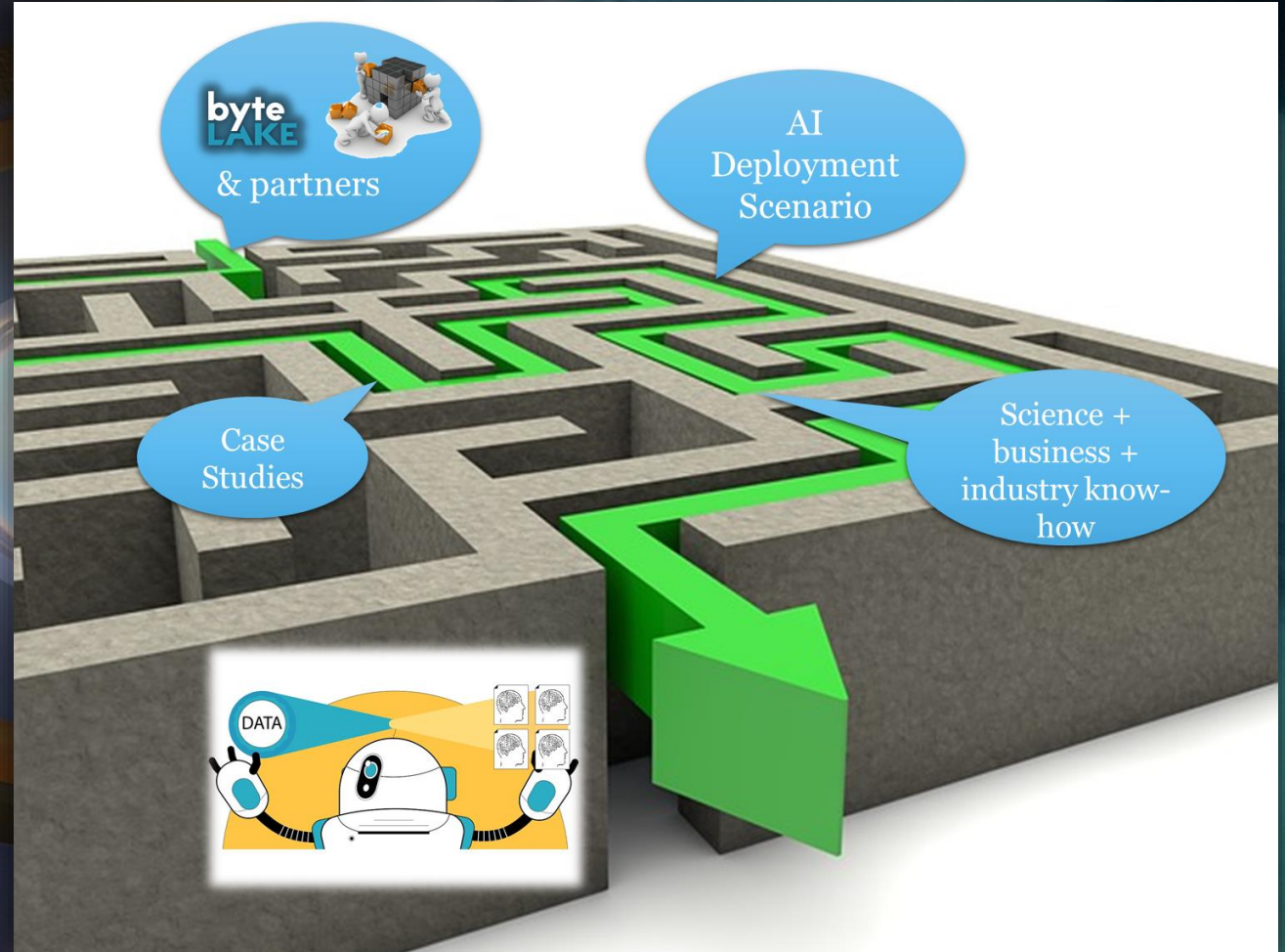# Contact us to learn more!

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Meet byteLAKE

AI Solutions for Industries |
Quality Inspection |
Data Insights |
Predictive Maintenance |
AI-accelerated CFD |
Self-Checkout

Empowering Industries with Artificial Intelligence Solutions.

At byteLAKE, we harness cutting-edge technology to provide advanced quality inspection and data insights tailored for the Manufacturing, Automotive, Paper, Chemical, and Energy sectors.

Additionally, we offer self-checkout stations for Restaurants and object recognition solutions for Retail businesses.
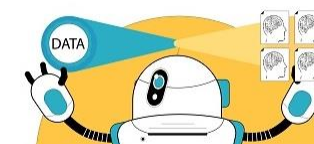
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Products:

AI Powered Solutions — byteLAKE — AI for CFD

AI Powered Solutions — DATA

CFD Suite

Cognitive Services

Partners & Clients

byteLAKE

"AI already plays a very important role in our daily lives. […] **The application of the Intel® Distribution of OpenVINO™ toolkit in byteLAKE's Cognitive Services shows that AI works efficiently as an actual tool for optimizing company operations.** *Moreover, such a combination* **reduces the barrier of necessary upgrades to IT infrastructure** *[…],"* **said Krzysztof Jonak, EMEA Territory Sales Director, Intel.**

intel
intel partner Gold IoT Solutions

intel RFP READY

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➢ Blog

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Ab›PL Digital World

mondi

MixIT *The Enterprise Mixing Analysis Tool*

NVIDIA INCEPTION PROGRAM

SIMPRA

JME

Bpower2

Nicholas Borsotto Machado Monteiro • 1st
WW AI Business Lead & Head of Lenovo AI Innovators // Co-founder of M...
Professionally and personally I couldn't have asked for better partners than Marcin Rojek, Mariusz Kolanko and team. Thank you for being with us from the start and allowing us to be your partner for scale. Looking forward to everything that will out next.

"Automation and optimization of various business processes are crucial and very high on our agenda when planning future roadmap for Bpower2. We see Artificial Intelligence as the key enabler to achieve such goals. **Being impressed by byteLAKE's achievements and innovativeness in the AI space***, we are very happy to welcome them as our partners who will design and deliver AI-based microservices for Bpower2,"* **said Jacek Rakoczy, Bpower2's CEO.**

Lenovo AI Innovators Partner Ecosystem

"We're also **working** *with a number of partners* **on AI initiatives** *that will provide real world solutions for customers. […] Our* **collaboration with** *partners such as Intel, NVIDIA, Mark III systems, and* **byteLAKE greatly expands the resources and expertise we're able to provide",* **said Dr. Bhushan Desam, Lenovo's AI Global Business Leader, HPC and AI Business.**

XILINX ALVEO byteLAKE

"byteLAKE saw the potential to make CFD analysis even faster and more easily accessible leveraging the flexibility and superior parallelism of Alveo accelerator cards," **said Viraj Paropkari, senior manager, Data Center Marketing, Xilinx.** *"Our teams worked together to create finely tuned kernels for Alveo accelerators that are ready to deploy on-premise or in the cloud."*

More at: byteLAKE.com