TensorIoT

Generative AI: Intelligence at Cloud Scale

TensorIoT solutions, powered by AWS, help companies innovate quickly, automate effectively, and operate sustainably

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TensorIoT

World Class IoT & AI Solutions

INNOVATE QUICKLY. AUTOMATE EFFECTIVELY. OPERATE SUSTAINABLY.

- **100% AWS** Cloud Native Products and Consulting
- Focus on IoT, CV, ML, AI, Data, and App Modernization
- Headquarters in USA with a Global Presence
- AWS North American Sustainability **Partner of the Year** (2022)
- Founded by a former AWS Professional Services technical leader
- Certified with 10 AWS Competencies including multiple industry designations and key technology designations
- Applying technology to advance the digital transformation journey

aws
PARTNER
Advanced Tier Services

- ML Services Competency
- IoT Services Competency
- Data & Analytics Services Competency
- Manufacturing and Industrial Services Competency

2022
AWS Sustainability Partner of the Year
North America

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Customer Outcomes



Inventory

15%-20% holding cost reduction



Labor Productivity

15-30% increase



Machine Downtime

30-50% reduction



Increased Throughput

10-30% increase



Forecasting Accuracy

85% improvement



Cost of Quality

10-20% improvement

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"Generative AI conversational assistants boosted worker productivity by 14%."

"[It] improves customer sentiment, reduces requests for managerial intervention, and improves employee retention."

Source: Generative AI at Work, National Bureau of Economic Research, April 2023

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What is Generative AI?



And how is it different from “non-generative” AI?

This branch of artificial intelligence (AI) is is characterized by systems which can be used to create new content in a variety of forms, including *text, code, audio, images, videos, or simulations*.

Such systems use a wider range of training data, offer a broader range of outputs, and facilitate a wider field of use.

In contrast, traditional AI systems are typically trained on a narrow set of task-specific data, such using vibration data to predict motor failure.

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Industry or Function	Uses of Generative AI
Manufacturing	Quality control, predictive maintenance, operator guidance, supply chain optimization, design and prototyping
Energy	Energy consumption forecasting, optimization of energy distribution, predictive maintenance of energy systems
Agriculture	Crop and soil monitoring, yield prediction, farm optimization, disease detection
Transportation	Route optimization, predictive maintenance, demand forecasting, autonomous vehicles
Healthcare	Medical research, disease diagnosis, personalized treatment plans, automating administrative tasks
Retail	Inventory management, personalized marketing, customer service automation, demand forecasting
Software/Tech	Automating software testing, bug detection, code generation, personalized software recommendations
Telecommunications	Network optimization, predictive maintenance, customer segmentation, personalized marketing campaigns
Entertainment & Media	Content creation (music, videos, articles), personalization of content, script creation
Financial Services	Fraud detection, algorithmic trading, customer service automation, credit risk assessment
Marketing & Advertising	Content generation, market research, customer segmentation, ad optimization
Legal	Contract analysis, legal research, due diligence automation
HR & Recruiting	Resume screening, job matching, candidate sourcing, engagement and training, automated responses

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FlexZero

LEADING SUSTAINABILITY PLATFORM TO HELP COMPANIES DECARBONIZE

Carbon Insights Generative AI

SUSTAINABILITY | STARTUP | MACHINE LEARNING | GENERATIVE AI

OPPORTUNITY

Our client, a startup focusing on sustainability, assists their customers in achieving their sustainability objectives by facilitating the calculation of carbon emissions. Their platform uses various data sources such as utility bills, machine telemetry, and business unit inputs. They were interested in leveraging Generative AI to automate key aspects of their operations and to rapidly extract insights from customer data using natural language queries.

SOLUTION

TensorIoT worked with the client to identify specific use cases where Generative AI could enhance their platform. We then created designs tailored to the client's needs and developed a solution featuring a user-friendly interface for delivering those use cases.

OUTCOME

The solution empowered the client to leverage a Large Language Model (LLM) to gain deep insights into carbon emissions, identify areas of efficiency, and discover opportunities for improvement. It allowed them to generate expressions using natural language and analyze datasets effectively, driving their mission for sustainability further.

PUBLIC REFERENCE

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LIVELIKE

AUDIENCE ENGAGEMENT PLATFORM

Generative AI for Content Moderation

SOFTWARE | CLOUD | GENERATIVE AI

8

OPPORTUNITY

LiveLike, a leading provider of audience engagement services including live chat monitoring, comment section moderation, and interactive widgets, places significant emphasis on their capability to moderate these platforms. This moderation ensures that customer brands maintain an audience experience that aligns with brand principles and values. LiveLike wanted to explore the potential for Large Language Models to classify and flag offensive content.

SOLUTION

To accelerate their success, the client partnered with TensorIoT to develop a comprehensive content moderation system leveraging AWS Generative AI services. The automated platform utilized Large Language Models (LLMs) to reliably and consistently flag offensive content for moderation and removal.

OUTCOME

Using Large Language Models, TensorIoT gave LiveLike the ability to tailor content moderation to fit each customer's needs. This avoided the need to train multiple models separately, leading to time and cost savings. This solution gives LiveLike the tools to offer improved, personalized moderation services, all while keeping costs under control.

PUBLIC REFERENCE

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LEADING DEVOPS PLATFORM

Generative AI: Troubleshooting

SAAS | MACHINE LEARNING | GENERATIVE AI

OPPORTUNITY

CircleCI, a top CI/CD service provider trusted by over 30,000 organizations, pinpointed an opportunity for process enhancement. Their build test error logs, while functional, offered room for improvement in providing more actionable insights. This presented an opportunity to streamline the development process and potentially elevate the platform's value proposition.

SOLUTION

To resolve this bottleneck, TensorIoT integrated generative AI, specifically Large Language Models, into the existing platform error reporting infrastructure. This solution categorizes error messages based on the nature of the code failure and also makes the system more intelligent. The upgrade significantly improves the platform's diagnostic feedback, making it more user-friendly and efficient, while seamlessly fitting into the client's existing workflow.

OUTCOME

TensorIoT demonstrated the transformative power of generative AI in elevating the client's platform capabilities. Our solution not only improves error categorization but also significantly enhances speed of delivery, a critical metric for their business. This has led to quicker issue resolution, increased user satisfaction, and greater operational efficiency. Plans are already in motion to further integrate AI for advanced troubleshooting based on these newly categorized errors.

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Manufacturing and Logistics

Generative AI for Manufacturing Data Analytics

GEN AI | CLOUD PLATFORM

OPPORTUNITY

A manufacturing & supply chain company struggled with manual reporting and lacked actionable insights from multiple separate data sources. The company lacked the perspective needed to optimize processes and increase productivity.

SOLUTION

TensorIoT built a data analytics solution on AWS using Generative AI by leveraging Amazon Bedrock and Anthropic's Claude Foundational Model. Business users can now use natural language prompts to automatically query databases and generate reports on key manufacturing and supply chain metrics.

OUTCOME

Business users gained efficiency, productivity and an competitive edge from data intelligent workflows, infrastructure and processes. There was an over 50% reduction in manual reporting efforts on production, quality, and supplier metrics and accelerated decision-making and time-to-insight on inventory, capacity, and supply risk factors.

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Public Sector

Generative AI for Public Sector

GEN AI | CLOUD PLATFORM

OPPORTUNITY

A nonprofit public sector organization focused on community health and outreach faced challenges with fragmented data systems and time-consuming manual reporting. Staff lacked the ability to easily synthesize data from public health campaigns, service delivery programs, and partner organizations—limiting their ability to measure impact, allocate resources, and respond to community needs in real time.

SOLUTION

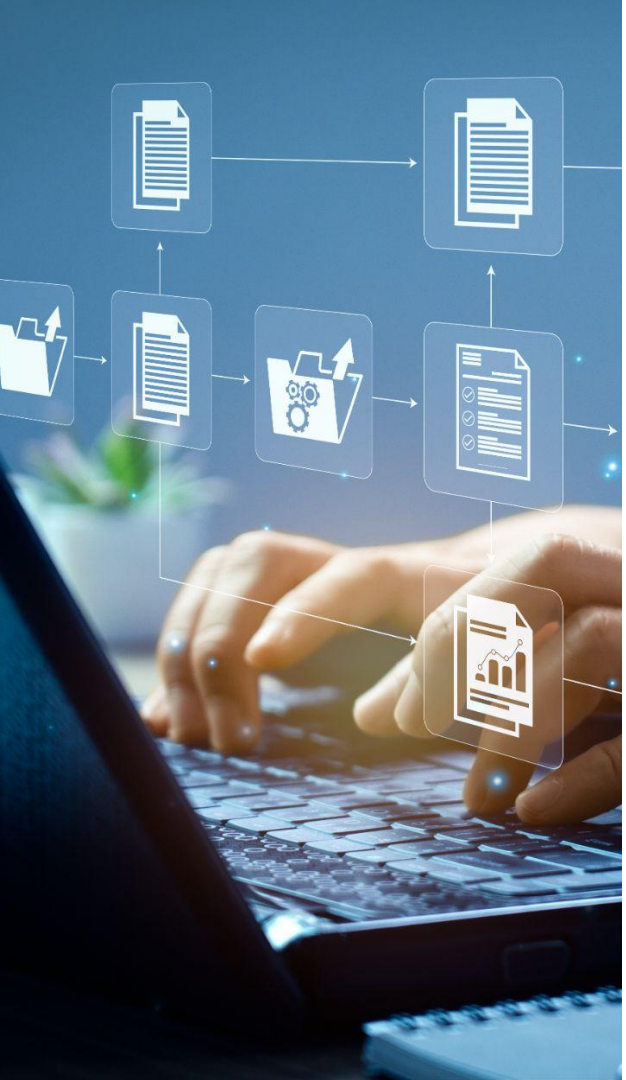
TensorIoT implemented a secure data analytics platform on AWS, integrating Generative AI using Amazon Bedrock. Staff and analysts can now use natural language queries to access unified datasets, generate reports, and uncover trends related to program participation, outcomes, and operational efficiency.

OUTCOME

The organization significantly reduced manual reporting by over 50% across program impact, resource utilization, and partner engagement metrics. With faster, AI-assisted insights, the team improved responsiveness to emerging community needs, optimized resource allocation, and enhanced transparency for stakeholders and grantors—ultimately driving more mission impact with less overhead.

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Mergers & Acquisitions

Generative AI for Strategic Decision Making

GEN AI | CLOUD PLATFORM

OPPORTUNITY

A firm sought to integrate generative AI into M&A related functions to enhance decision-making, streamline processes, and gain a competitive edge.

SOLUTION

TensorIoT built a Generative AI Platform on AWS leveraging Amazon Bedrock and Anthropic's Claude language model. It summarizes information, answers deal questions, and identifies risks and opportunities. It achieves efficiency, accuracy and savings by analyzing info faster than humans. It reduces bias and frees resources to focus on strategic work.

OUTCOME

The platform streamlines processes, improves decision making, and provides a competitive edge. It drives efficiency, accuracy and lower costs in M&A decision-making.

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What if you could feed a Generative AI Model your company's operating data to gain insight into performance, receive guidance for improving operations, support sustainability initiatives, or address your particular opportunities, all while retaining control of your data?

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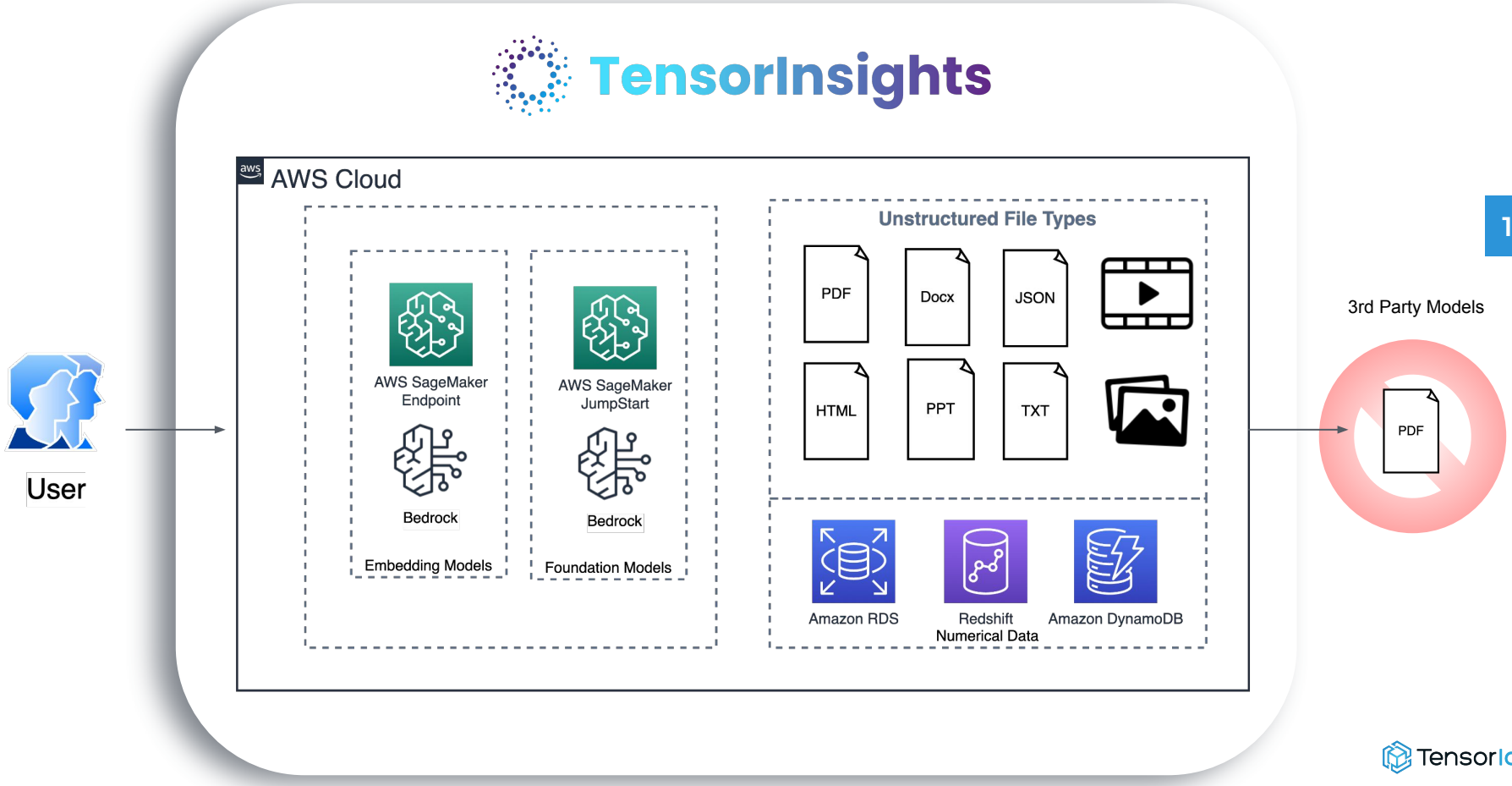
TensorInsights: Generative AI

- Always operates on data in your own AWS account, protecting your proprietary data
- Results based on selected foundational model(s) plus fine tuning based on your data
- Prompts (A) generate responses (B) which are linked to your data sources (C) providing explainable results
- Configured and customized for your industry and your specific data sources



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TensorInsights: Securing Intelligence



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Generative AI Adoption Journey



Business value achieved in a matter of weeks...

CRAWL...1 WEEK GENERATIVE AI ASSESSMENT	WALK...2-4 WEEKS PROOF OF VALUE	RUN...4-8 WEEKS + BEYOND PRODUCTION DEPLOYMENT
▪ Identify use cases ▪ Get organizational engagement ▪ Establish governance	▪ Rapid build out of a Proof of Concept ▪ Identify Datasets and Models ▪ Begin user testing	▪ Initiate deployment of multiple models at datasets and use cases

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TensorIoT Guidance for Industrial Generative AI

1	Security	■ Protection of proprietary information and manufacturing methods ■ Ensuring regulatory compliance (e.g. OSHA, ECPA, NLRB) ■ Secure data sharing with partners and third parties
2	Precision	■ Appropriate interpretation of complex process data ■ High accuracy in process/procedure recommendations ■ Maintaining consistency across diverse use cases
3	Model Selection	■ Identifying models that accurately interpret real-world process data ■ Identify models with the best price/performance
4	Architecture and Tools	■ Selecting tools that can handle the volume of data ■ Integration of AI tools with existing MES, MOM, APM, CMS, ERP, and other systems
5	Talent and Capabilities	■ Training staff to use AI tools effectively ■ Bridging the gap between domain experts: data scientists, equipment operators, and manufacturing or process engineers
6	Transparency and Explainability	■ Providing clear interpretation of AI-derived answers ■ Ensuring the AI system's reasoning is explainable ■ Monitoring AI systems for potential bias

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Free Generative AI Executive Briefing

Exclusive Offer:

Join TensorIoT for a complimentary Executive Briefing, an exclusive opportunity for qualified decision-makers to explore the transformative power of Generative AI. This session provides an interactive platform for knowledge transfer, setting the stage for future AI readiness.

Key Topics

- **Strategic AI Insight**: Gain a foundational understanding of Generative AI and its potential to revolutionize your business operations.
- **Custom Use Case Discussion**: Engage in a discussion about your unique business objectives and how they might align with prospective AI initiatives.
- **Organizational Readiness**: Discuss the key challenges every organization faces when adopting Generative AI; including skills, bias, and data governance.

This exclusive briefing is your opportunity prepare for a successful AI transformation journey. Register today for your Free Executive Briefing, and begin your journey towards unlocking the power of Generative AI for your business.

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Thank you

How can generative AI be applied in your business?

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