



Grow your business with Artificial Intelligence



PROVINCIA AUTONOMA
DI TRENTO

TRENTINOSVILUPPO
IMPRESA INNOVAZIONE MARKETING TERRITORIALE



Applicazioni pratiche di AI: Nuove Frontiere nella Computer Vision e Knowledge Management System

Ing. Jonni Malacarne, CEO Bluetensor Srl

Rovereto, 5 Dicembre 2023

Benefici dell'IA



Ottimizzazione

Automatizzazione attività ripetitive



Insights

Estrazione informazioni di qualità dai dati



User Experience

NLP, agenti conversazionali, etc. per miglior supporto pre e post vendita



Standardizzazione

Attività non dipendenti dallo stato dell'operatore



Qualità del lavoro



- ✓ Maggior tempo per attività a valore aggiunto
- ✓ Energia e Focus su questioni importanti
- ✓ Sicurezza, riallocazione staff su lavori più sicuri



Tecnologie



Computer vision



Natural Language
Processing



Predictive analysis



Generative AI



Il nostro contributo per l'industria



BlueTensor Framework

**Piattaforma completa
basata su AI per soluzioni
Taylor-made**

- supporto alle decisioni
- ottimizzazione produzione
- esperienza utente
- gestione know-how aziendale



Prodotti AI-Based ready to use



Piattaforma completa di
computer vision & analisi predittiva

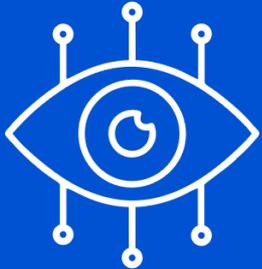


Piattaforma con **gestione documentale
integrata** che **converte il testo in
assistenti informati.**



Computer Vision

Casi d'uso



Caso studio

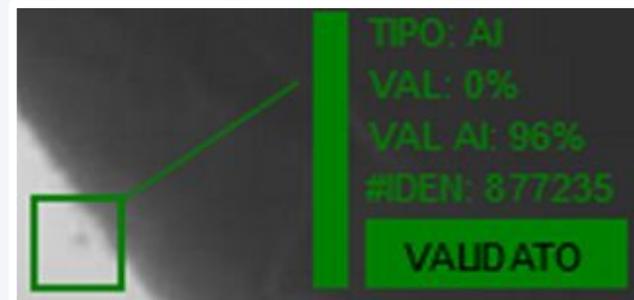
Tecnologia: Computer Vision

Settore: Industria

Controllo qualità componenti realizzati in additive manufacturing

Punti chiave:

- Riconoscimento del 100% difetti di diametro $> 1,5$ mm
- Massimo 6% di falsi positivi;
- Creazione di rapporti automatici con le caratteristiche geometriche dei difetti;
- Integrazione con il flusso di lavoro aziendale.



Caso studio

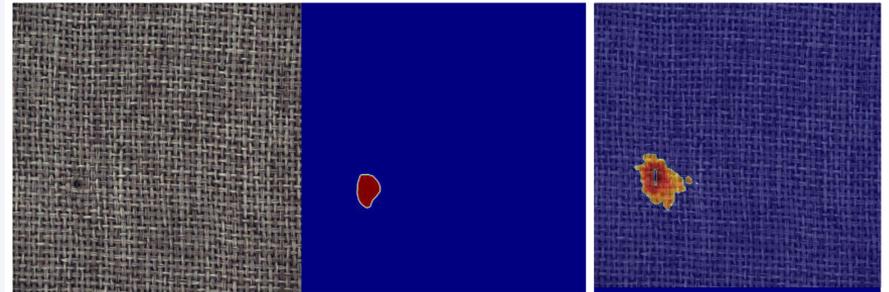
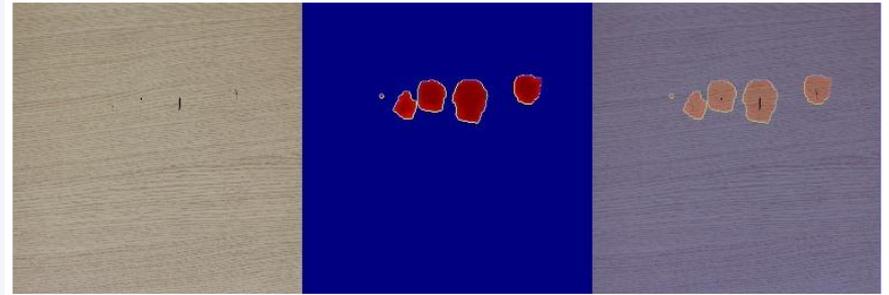
Tecnologia: Computer Vision

Settore: Manufacturing

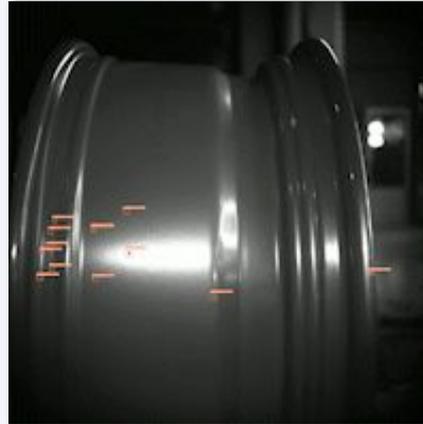
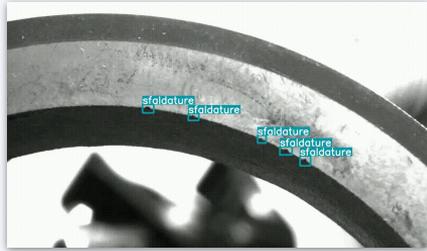
Controllo pattern e difetti

Punti chiave:

- Diverse tipologie di superfici e materiali;
- Pattern articolati e particolari;
- Identificazione posizione e quantificazione superficie colpita.



Controllo qualità



Videosorveglianza



Ricerca dispersi

Tecnologia: Computer Vision

Settore: Safety&Security

Algoritmo a supporto della ricerca dei dispersi

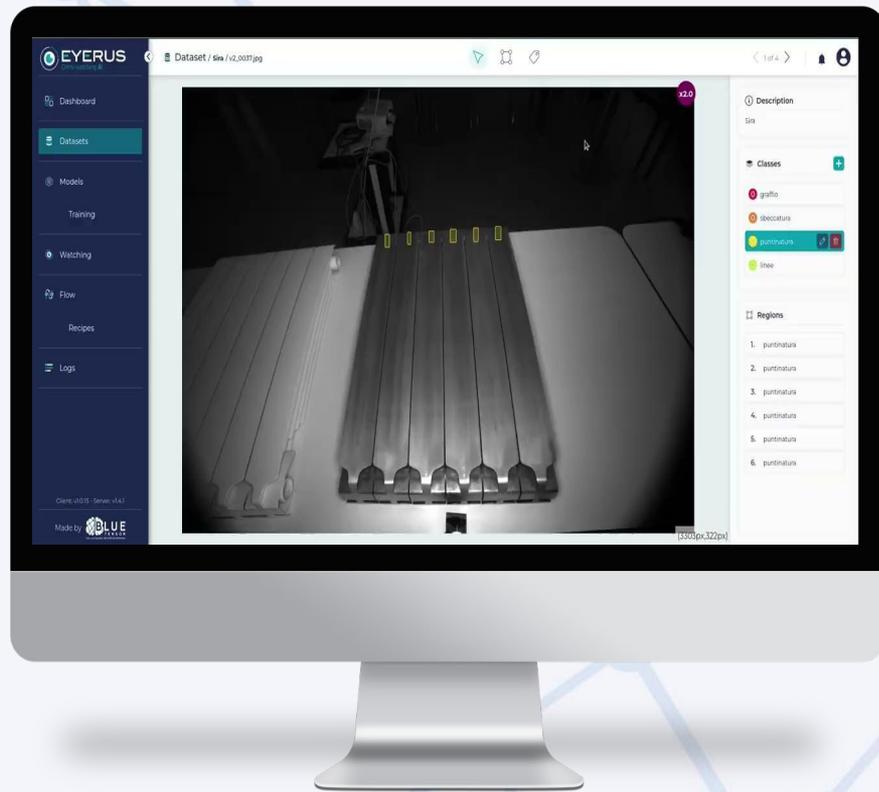
Punti chiave:

- Tecnologia portatile (offline)
- Installabile su droni e su inquadrature aeree
- Algoritmo addestrabile a diversi contesti (neve, boschi, fondi rocciosi, etc.)



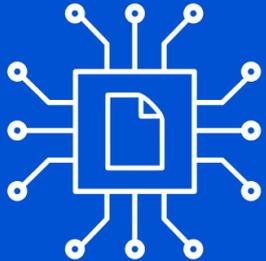
PIATTAFORMA COMPLETA DI COMPUTER VISION & ANALISI PREDITTIVA

- ✓ Sistema modulare, semplice e scalabile
- ✓ Creazione DataSet
- ✓ Labellizzazione Intelligente
- ✓ Algoritmi validati allo stato dell'arte
- ✓ Possibilità aggiunta nuovi Algoritmi
- ✓ Live Streaming
- ✓ Creazione workflow automatizzati



Knowledge Management System

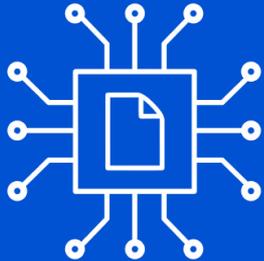
Casi d'uso



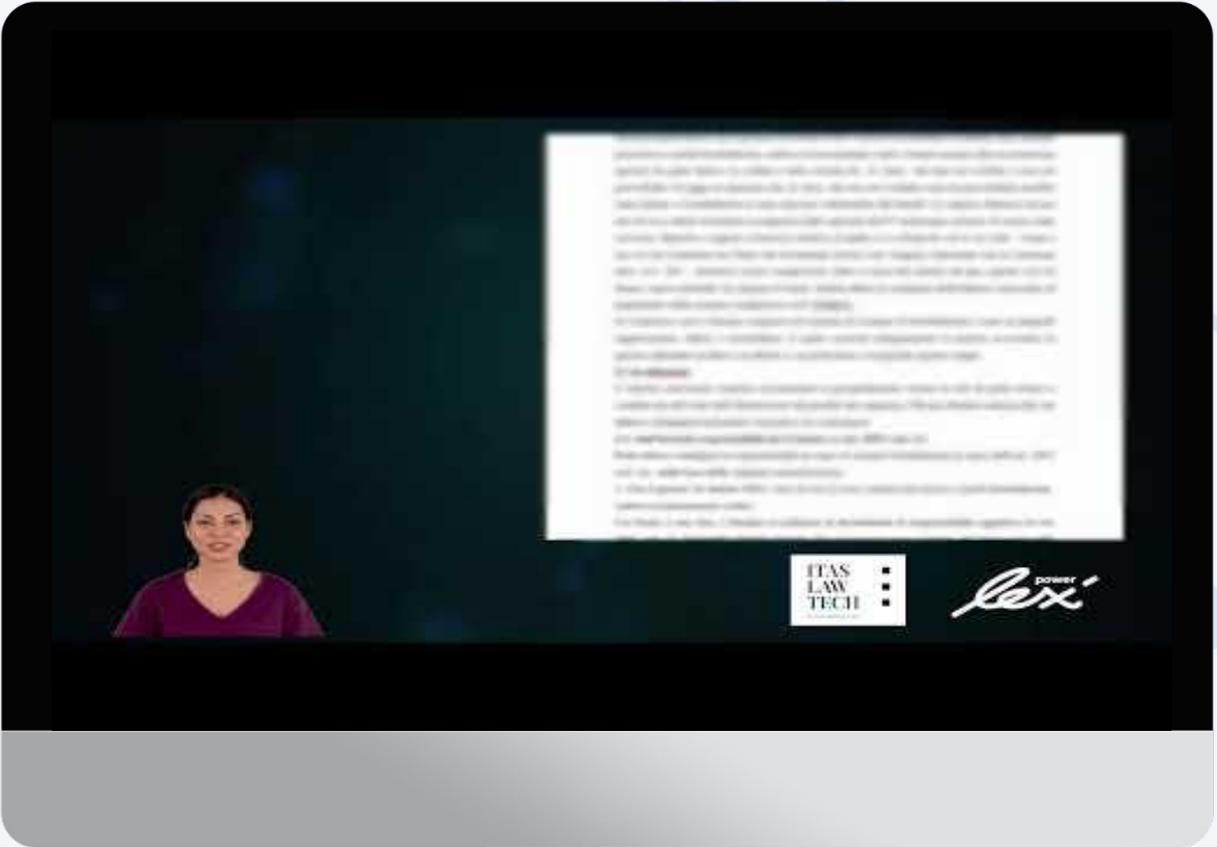
Knowledge Management System

Casi d'uso

1. Avvocato virtuale



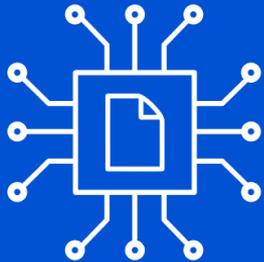
Avvocato Virtuale



Knowledge Management System

Casi d'uso

2. Assistente su tecnologie assistive



Reasoning System for content validation (WHO)

Assistive Product Explorer

*We use artificial intelligence to help you find an assistive product to meet your needs.
Search now and we will give you some useful suggestions in just a few clicks.*

Our suggestions are independent and do not refer to any specific brand or model.

*You do not need to register in order you use the system. Please register so that you can share your feedback
and comments - many thanks in advance for your time!*

🔍 Guided Search

★ Classic Search

The screenshot displays the 'Assistive Product Explorer' interface. On the left, a sidebar lists 'Product Rules' with categories like 'Possible configuration variants', 'Possible accessories', 'Product guidelines', 'Indicated information', 'Contraindications', and 'Indicated alternatives'. The main content area shows a search result for 'White cane' with a green header, a 'Print document' button, and a detailed description: 'Long cane painted white or coated with reflective white tape. It has a lightweight shaft (collapsible or straight), usually constructed from aluminum, graphite, carbon fiber or fiberglass, approximately one half inch in diameter with a rubber, plastic, leather or wood hand grip at one end and a nylon, plastic or metal tip at the other (which can be pointed, or rounded with the shape of a cylinder or roller tip). The collapsible canes are commonly known as folding or telescopic canes.' Below the description are links for 'Why the system suggests you...' and 'Product fact sheet'. In the foreground, a dialog box titled 'Add a new rule: Possible configuration variants' is open. It contains a 'Text:' field with the rule 'A walking stick can include a wrist' and an 'Overlapping: 80 %' field. A 'Check' button is at the bottom right, and a 'Back' button is at the bottom left.



Product

Walking stick (ISO 120303)

*Product description **

Hand-held walking stick, composed of a T-shaped handgrip, a height-adjustable shaft and a rubber-tip ferrule.

Possible configuration variants

Contoured handgrip. Crook handgrip. Swan-necked shaft. Folding shaft. Ice ferrule. Pivoting ferrule. Wrist strap. U-shaped clip. Prop.

Goal descriptors

*Intended goals **

Walking [d450].

Impairment descriptors

*Indicated impairments **

Mild difficulty in walking [d450]. Mild difficulty in standing [d4154].

*Contra-indicated impairments **

Severe difficulty in grasping/gripping [d4401]. Ability to use only one leg. Severe arms weakness [b7301]. Severe difficulty in holding things [b760]. Having had a fall in the past months or feeling like might fall. Poor balance and strength.

Environment descriptors

Indicated environments

-

Contra-indicated environments

Iced ground (unless with ice ferrule).
Wet floors (unless the path is equipped with grab rails)

Other descriptors

Other indicated factors

Other contra-indicated factors

Wounded diabetic foot.

Source descriptors

*Submitter **

Name Surname, Profile, Country, e-contact

Literature source (URL)

<https://www.dlf.org.uk/factsheets/walking>.

<https://www.gate-tap.org/topic/walking-aids-covered-in-tap/>

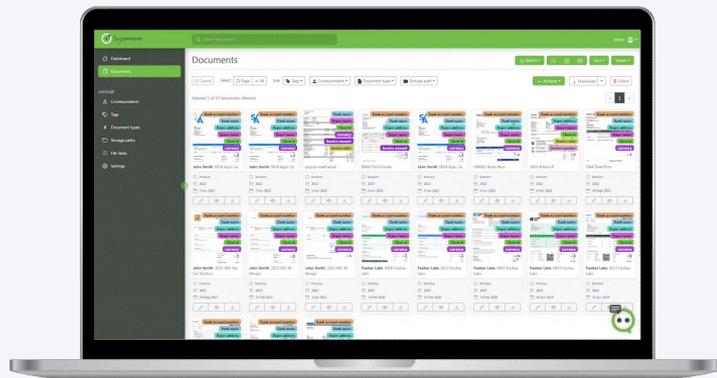


Knowledge Management System

The background is a solid blue color. On the right side, there are several white lines that intersect to form a network-like structure. Three white circular dots are placed at the intersections of these lines, creating a partial grid or network pattern that extends from the top right towards the bottom right of the slide.

Come creare un assistente digitale personalizzato ?

LinguAnalysis



PIATTAFORMA CON GESTIONE DOCUMENTALE INTEGRATA CHE CONVERTE KNOW-HOW IN ASSISTENTI INFORMATI.

- ✓ Basata su **LLM** (Lama2/ GPT 3.5/GPT4.0)
- ✓ **OCR** evoluto
- ✓ **Categorizzazione** dei documenti
- ✓ **Estrazione informazioni** da documenti
- ✓ Creazione di **assistente virtuale personalizzato** sulla base di contenuti testuali estratti da documenti e/o da siti web



Classifica i tuoi documenti



The screenshot shows the LinguAnalysis dashboard in a browser window. The browser address bar shows 'portal.linguanalysis.ai/dashboard'. The dashboard has a green header with the 'linguanalysis' logo and a search bar. A dark sidebar on the left contains navigation options: Dashboard, Documenti, Bots, APRI DOCUMENTI (simple, Chiudi tutti), and GESTISCI (Etichette, Attività File, Impostazioni). The main content area is titled 'Dashboard' and greets the user 'demo_fiera'. It features a 'Carica nuovi documenti' section with a large dashed box for file uploads and a 'Sfogli i file' button. A 'Statistiche' section displays document and character counts, along with a pie chart showing file format distribution: PDF (58%), PNG (20%), JPEG (4%), TXT (4%), and WEBP (4%). A green banner at the bottom right states 'LinguAnalysis è in esecuzione!' and includes a thank-you message.

Dashboard - LinguAnalysis

portal.linguanalysis.ai/dashboard

linguanalysis

Carica documenti

demo_fiera

Dashboard

Ciao demo_fiera, benvenuto su LinguAnalysis

Carica nuovi documenti

Trascina qui i documenti oppure [Sfogli i file](#)

[Analizza sito](#)

Statistiche

Documenti totali: 25

Caratteri totali: 10.034.602

● PDF (58%) ● PNG (20%) ● JPEG (4%)
● TXT (4%) ● WEBP (4%)

LinguAnalysis è in esecuzione!

Sei pronto per iniziare a caricare i documenti!

Grazie per essere parte della comunità



Interroga i tuoi documenti



The screenshot displays the 'LinguAnalysis' web application. The browser address bar shows the URL 'portal.linguanalysis.ai/documents?added_date_gt=2023-11-14&sort=added&reverse=1&page=1'. The application has a green header with the 'LinguAnalysis' logo and a search bar. A dark sidebar on the left contains navigation options: Dashboard, Documenti (highlighted), Bots, VISTE SALVATE (with 'asd'), GESTISCI (with Etichette, Attività File, and Impostazioni). The main content area is titled 'Documenti' and includes action buttons like 'Seleziona', 'Ordina', and 'Viste'. Below this, there are controls for 'Annulla', 'Seleziona: Pagina Tutto', and 'Modifica'. A document titled 'MANUALE USO E MANUTENZIONE' is selected, showing a thumbnail of a blue machine and the text 'tomio manuale utente' and '1 mag 2013'. On the right, a 'Chat' window is open, showing a user question: 'come posso regolare la velocità del mandrino?'. The chat interface includes a text input field with the placeholder 'Type your question here...', an 'Invia' button, and a 'Crea bot' button at the bottom.





Grow your business with Artificial Intelligence



PROVINCIA AUTONOMA
DI TRENTO

TRENTINOSVILUPPO
IMPRESA INNOVAZIONE MARKETING TERRITORIALE



Grazie per l'attenzione



Ing. Jonni Malacarne
CEO, Bluetensor Srl
jonni@bluetensor.ai