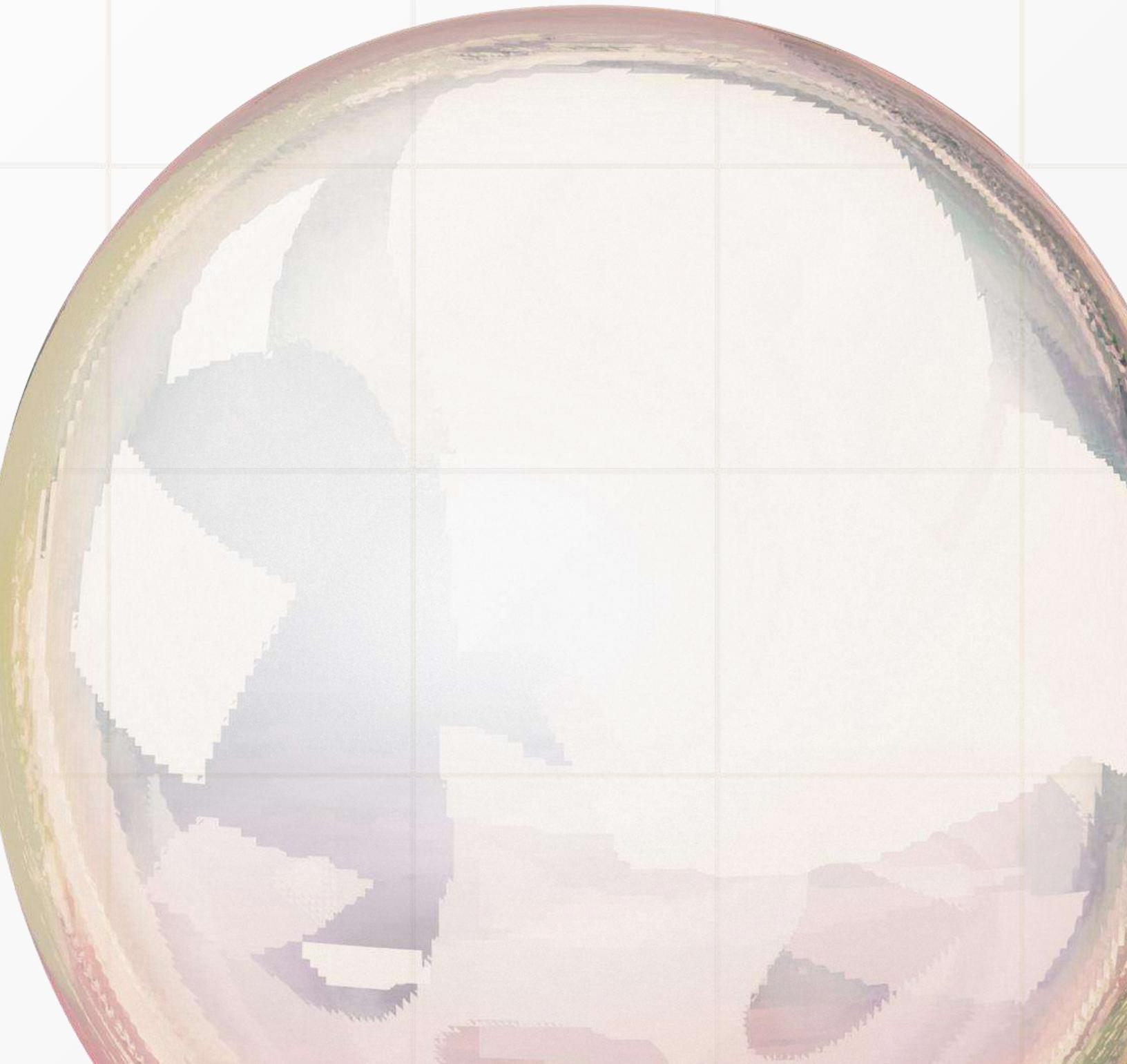


# PFE BOOK CLOUDIASYS

Making Cloud Working Your Way

# About Us

Founded by Data experts and Microsoft Certified Trainers (MCT), CloudiaSys embodies the spirit of data valorization. The company is primarily positioned in consulting and integration of data solutions and infrastructures based on Microsoft Azure, Google Cloud Platform, and Cloud Native technologies.



# Our Expertise



# Department Data

[Home](#)[About](#)[PFE Projects](#)[Others](#)

## Ingestion, Processing, Analysis, and Insights

Collecting, modeling, and analyzing data in complex environments has become more than ever a key element for driving business activities. Our consultants, **Data Analysts**, **Data Engineers**, and **Data Scientists** collect, process, and model client data in hybrid environments using On-Premises Data technologies and **Azure** and **GCP** cloud services to deploy high-performance analytical platforms that enable clients to gain insights for the present and the future of their business.



# Department DevOps

## Infrastructure, Cloud, and DevOps

Implementing a modern, robust, and secure Infrastructure architecture cannot be done without integrating a layer of containerization and automation for application deployment within the company's information system. By mastering the culture and tools of DevOps, our **Cloud Architects**, **Azure Certified SysOps Engineers**, and **Kubernetes Security Experts** support clients in their Cloud or Hybrid Infrastructure projects to address their Administration and Governance challenges within a CI/CD framework.



# Department CyberSecurity

## Audit, Security, and Governance

The risk of cybersecurity is the deterioration of resources, revenue, and the company's reputation. If a company can never achieve perfect security, it can become resilient to security attacks. The objective of security is to identify and mitigate risks, and then to enable the company to enhance its security with minimal risk. Our **DevSecOps Engineers** and **Security Architects** assist clients in their information system security projects using the best frameworks and tools available on the market.



# Department Training

## Bootcamps, Coaching, and Certifications

Implementing Cloud, Data, or DevOps projects focused on technological excellence requires the continuous training of a company's IT teams. Our trainers and **Microsoft Certified Trainers (MCT)** train the IT teams of our clients on the latest technologies of **Microsoft Azure** Cloud and **Google Cloud Platform (GCP)** with personalized and certification-oriented pathways. We also regularly train our consultants with internal Bootcamps to maintain their level of technological excellence.



# Department Support

## Integration, Maintenance, and Support

Handling the various **support** requests from employees of a company and maintaining the IT applications in production while adhering to its **SLA** requires availability and responsiveness, along with a strong capacity for listening. Our Service and Support Center in Tunis brings its expertise in **Level 1, Level 2, and Level 3 support**, deployments, and application maintenance of clients' information systems.

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# They Trust Us



# CloudiaSys Academy

As part of our consultancy group, our academy offers a wide range of professional training programs designed to build real-world skills and support career growth. Whether you're an individual looking to upgrade your expertise or a company seeking to train your teams, our courses are practical, up-to-date, and led by experienced professionals.

## Formations

Cloud & DevOps



Data & IA



Kubernetes



Cyber Sécurité



Microsoft Azure



GCP



Kubernetes



Terraform



Power BI

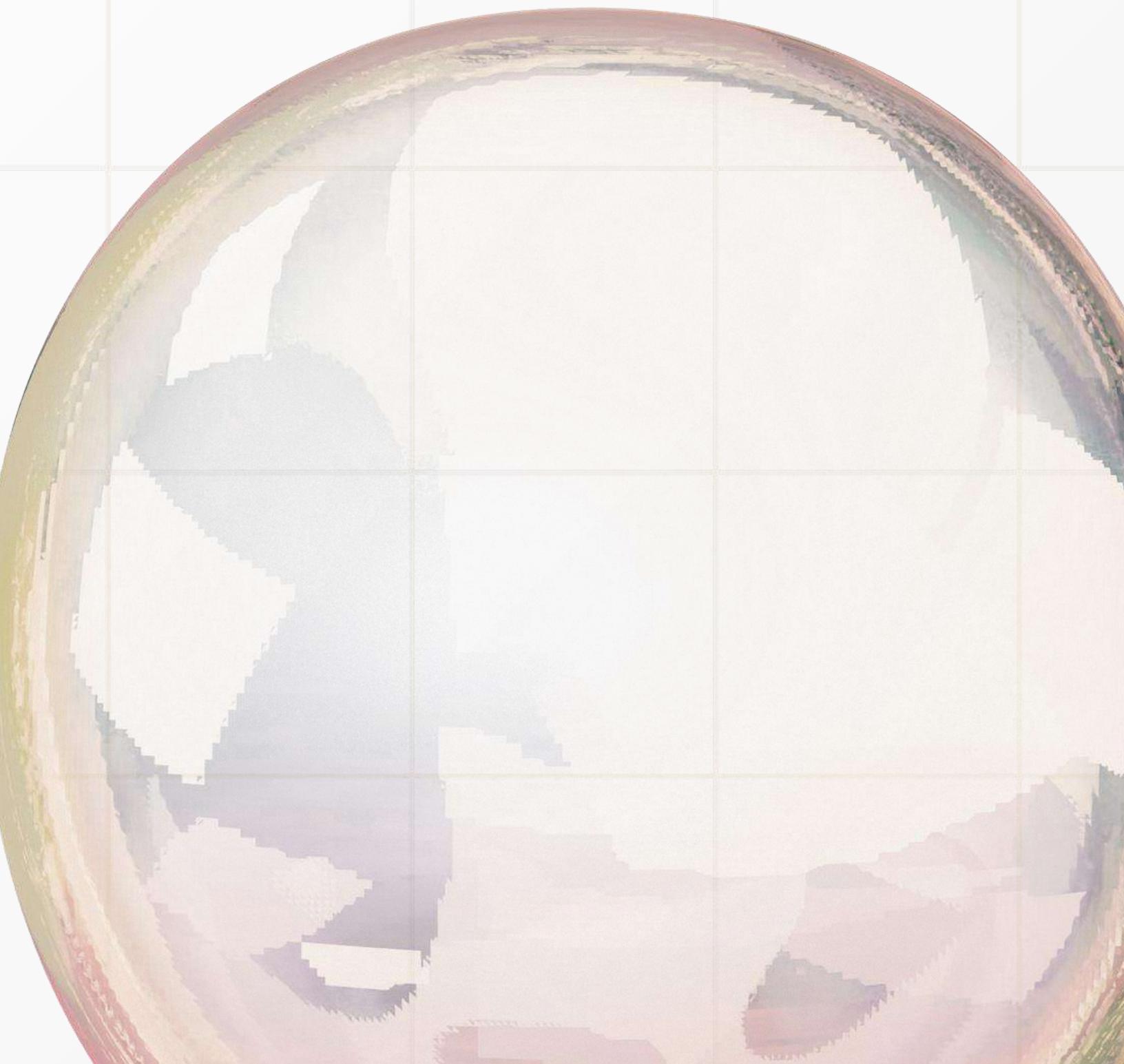


Splunk

# AI Team

Our AI team develops solutions across various domains including predictive analytics, computer vision, and intelligent automation. Interns work alongside AI engineers on active projects using modern frameworks and cloud platforms.

**Discover our 2026 AI projects below.**



**What:** Detect student emotions (frustrated, confused, excited etc...) from text and voice, then adapt teaching style automatically

**Stack:**

- FastAPI – REST API endpoints
- LangGraph – Workflow orchestration
- HuggingFace Transformers – Sentiment models (RoBERTa, BERT)
- Wav2Vec2 – Voice emotion recognition
- librosa – Audio feature extraction
- Qdrant – Store emotion history
- Streamlit/Plotly – Emotion analytics dashboard

**Key Skills:** NLP, audio processing, adaptive systems, ML model integration



## PROJECT 2: Face Recognition & Engagement Tracking

**What:** Use webcam to detect if student is paying attention, looking away, or distracted. Pause lesson when student leaves. Track attention patterns.

### Stack:

- OpenCV - Computer vision
- MediaPipe Face Mesh - Face detection & gaze tracking
- WebRTC - Real-time video streaming
- FastAPI + WebSocket - Stream engagement metrics
- LangGraph - Adaptive pause/resume logic
- Redis - Real-time state management
- Streamlit - Teacher dashboard

**Key Skills:** Computer vision, real-time systems, privacy-aware design, WebSocket



## PROJECT 3: Gamification & Progress System

**What:** XP, achievements, leaderboards, skill trees, challenges.

**Stack:**

- FastAPI – Gamification API
- PostgreSQL – User stats
- Redis – Leaderboards
- LangGraph – XP logic
- Qdrant – Challenge recommendations
- WebSocket – XP updates
- React – Animations
- Streamlit – Admin dashboard

**Key Skills:** Game design, backend systems, real-time updates, analytics

## PROJECT 4: Automatic Exercise Generator

**What:** LLM generates new terminal exercises, with hints and test cases.

### Stack:

- LangGraph – Exercise generation
- vLLM + Mistral – Content creation
- FastAPI – Exercise API
- Docker Sandbox – Test execution
- Qdrant – Exercise DB
- LLM Judge – Quality evaluation
- Prompt engineering – Templates

**Key Skills:** Prompt engineering, content generation, automated testing



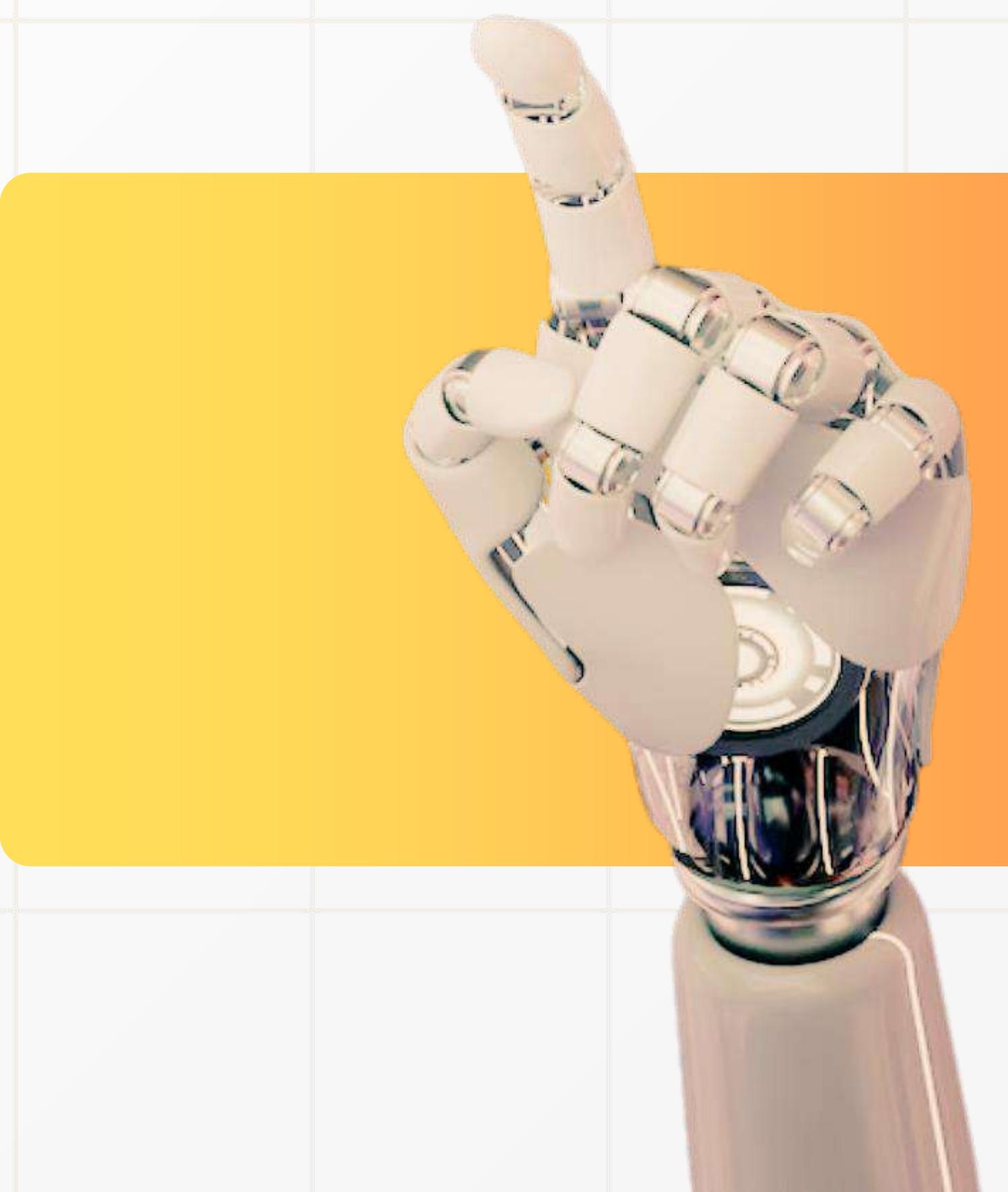
## PROJECT 5: Smart Note-Taking & Knowledge Graph

**What:** Auto-generate notes and build a concept graph.

**Stack:**

- LangGraph - Notes workflow
- vLLM + Mistral - Summaries
- Neo4j - Graph DB
- Qdrant - Semantic search
- FastAPI - Notes API
- Markdown - Notes
- D3.js - Visualization
- spaCy - Entity extraction

**Key Skills:** Knowledge graphs, NLP, information extraction, graph databases



## PROJECT 6: Accessibility Features Suite

**What:** Screen reader, captions, keyboard nav, dyslexia-friendly UI.

**Stack:**

- React – UI
- ARIA – Screen reader
- FastAPI – Preferences API
- WebRTC – Live captions
- Kyutai/Whisper STT
- Gemini TTS
- LangGraph – Adaptive UI
- PostgreSQL – Preferences

**Key Skills:** Accessibility (WCAG), inclusive design, assistive tech

# Contact Us

- contact@cloudiaysys.com
- <https://cloudiaysys.com/>
- 150 rue Lamarck, 75018 Paris

