



# AI Hackathon Teaser & Topic Overview



## Welcome to the AI Hackathon!



January 16–17 — 24 hours of innovation

Organized by **La FrenchTech Shanghai**, this immersive 24-hour sprint brings together creators, engineers, designers, entrepreneurs and AI enthusiasts to build impactful solutions in a single intense burst of collaboration.

Prepare for 48 hours of creativity, caffeine, collaboration, and bold innovation! This hackathon brings together developers, analysts, designers, product thinkers, and dreamers from every background. Whether you're here to test your technical limits, explore AI for the very first time, or help build a product that could genuinely change the world — you're in the right place.

Our mission? Turn diverse talent into powerful solutions. You'll not only build AI systems — you'll shape full products: from concept and branding, to UX flows, to functional prototypes ready to pitch. 💡

This competition is designed to: - Inspire real-world problem solving 🕒 - Empower beginner and advanced participants - Encourage bold, creative experimentation 🕒 - Produce tangible, demo-ready AI products ⚙️

You choose your challenge. You choose your tools. You choose how far to push the limits.

And yes... 🕒 there are prizes. For each topic. And one grand winner.



## What's Expected — Product, Not Just Prototype

Each team is encouraged to deliver a **complete product vision**, including:

- ⚙️ Functional prototype or working demo
- 🕒 UI/UX mockups or interface
- 📄 Clear product message & branding
- 📊 Value proposition & user scenarios
- 🗣️ Final pitch presentation

We'll provide trainings, tools, and datasets. Thanks to our technical sponsors **STMicroelectronics** and **Alibaba Cloud**, participants can leverage:

- 🖨️ STM32N6 Edge AI development boards (embedded & CV)
- 🌐 Alibaba Cloud Model Studio (LLMs, CV models, analytics)
- 🖨️ DashVector, OSS, PAI-DSW, PAI-Designer, etc.

These tools are optional — you're also free to use **any open-source or approved tech stack**. But taking advantage of these pre-integrated ecosystems can boost your development speed — especially for Edge AI, LLMs, forecasting, and CV challenges. You bring ambition. And curiosity. And memes. (Optional, but highly recommended.)

This is a competition — but creativity wins. The rules? Flexible. The expectations? High. The potential? Huge.

Evaluation criteria exist — but won't be fully revealed until the event. 🗝️

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## Topic One-Pagers

### **Guardian Co-Pilot — Edge AI That Protects & Assists**

#### **Teaser**

Imagine an AI that watches over drivers and passengers like a guardian angel — detecting risky situations, fatigue, and unsafe posture, all on-device. No cloud. No delay. No privacy compromises.

From long-haul trucks to shared mobility, millions of lives depend on safer cabins. You could build tech that prevents accidents, saves lives, and becomes a global standard.

#### **Suggested Tools & Datasets**

- Edge AI SDKs
- Pose estimation datasets
- Embedded development boards
- On-device inference frameworks

#### **Deliverable Expectations**

- Real-time detection/monitoring MVP
- Companion UI for feedback or alerts
- Messaging/branding around safety & ethics
- Demo showcasing real-world scenarios

Impact potential? 🕒 Transform transportation safety. Personal gains? Master Edge AI + CV.

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### **Health Decoder — Wellness From a Single Snapshot**

#### **Teaser**

Wellness shouldn't require labs. What if a simple captured image could reveal hydration levels and guide healthier habits? Imagine empowering athletes, parents, travelers, and doctors with instant insights.

You will explore the frontier where visual biomarkers meet consumer tech — democratizing personal health.

#### **Suggested Tools & Datasets**

- Sample image datasets

- Computer vision models
- Predictive analytics frameworks
- Cloud-based inference tools

### **Deliverable Expectations**

- Visual analysis + hydration scoring
- Simple interface for feedback
- User education & health campaign branding
- Product demo for real-world use cases

Impact potential?  Accessible health. Personal gains? CV + DS for diagnostics.

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## **Master Trainer — AI That Coaches Like a Human**

### **Teaser**

Imagine an AI coach that trains people through natural conversation — teaching, evaluating, encouraging, and simulating real interactions. From sales to education, training becomes scalable and personalized.

This is your chance to build a mentor — not just a bot — one that understands nuance, evaluates responses, and tailors feedback.

### **Suggested Tools & Datasets**

- Conversational LLMs
- Knowledge bases / documents
- Agent frameworks
- Feedback & scoring logic

### **Deliverable Expectations**

- Interactive dialogue experience
- Assessment and feedback loops
- User personas + journey design
- Training scenarios & marketing strategy

Impact potential?  Education & workforce development. Personal gains? LLM + UX for training.

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## **Industrial Detective — AI That Solves Root Causes**

### **Teaser**

Manufacturing failures cost millions daily. What if AI could uncover the hidden correlations that reveal root causes — before they cascade into recalls or downtime?


You'll turn complex datasets into actionable insights, building tools that support engineers and decision-makers.

## Suggested Tools & Datasets

- Time-series & NCR datasets
- Document analysis & OCR
- Data visualization frameworks
- Machine learning pipelines

### Deliverable Expectations

- Exploratory dashboards
- Insight generation & scoring
- Suggested corrective actions
- UI for factory operators & analysts

Impact potential?  Smarter, safer industry. Personal gains? DS + causal reasoning.

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## Energy Optimizer — Climate Meets AI Control

### Teaser

Buildings consume ~40% of global energy. Imagine AI that predicts demand and fine-tunes HVAC systems in real-time — cutting emissions and cost while improving comfort.

Your solution could contribute to sustainable cities and greener operations.

## Suggested Tools & Datasets

- Time-series energy datasets
- MPC frameworks & solvers
- Predictive modeling tools
- Simulation environments

### Deliverable Expectations

- Optimization strategy MVP
- Control dashboard & KPI visualization
- User experience for facility managers
- Pitch narrative around sustainability

Impact potential?  Energy + environment. Personal gains? MPC + forecasting.

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## Final Note — Choose Your Challenge

Each topic: - is beginner friendly (with training!) - supports multiple AI domains - invites both tech & creative minds - solves a meaningful real-world problem

Your job isn't to just code — it's to design, storytell, challenge assumptions, and bring a product to life.

The world needs builders. We can't wait to see what you create.

 Let's hack for impact!