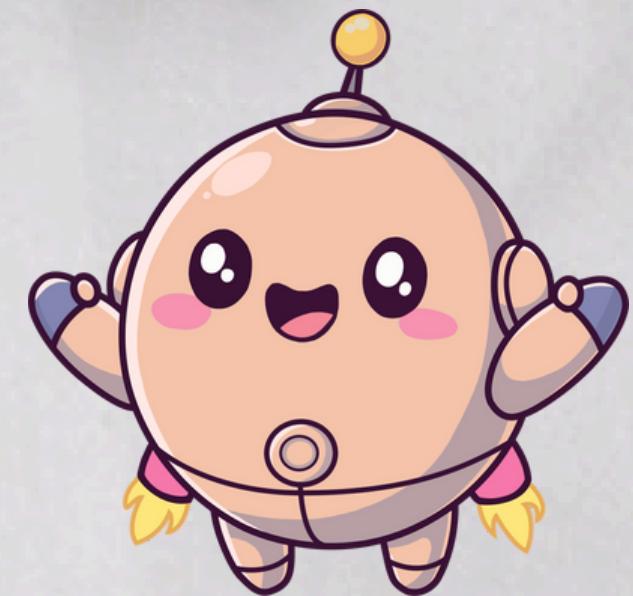
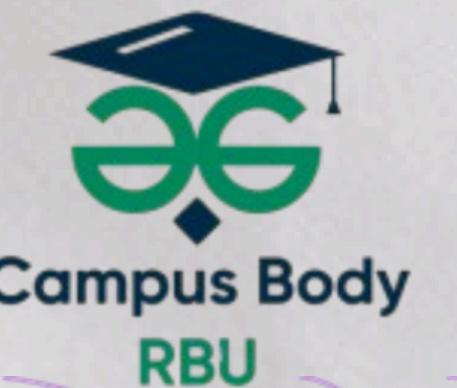


VIBE VERIFIER

AN AI HALLUCINATION AND CITATION
VERIFICATION SYSTEM

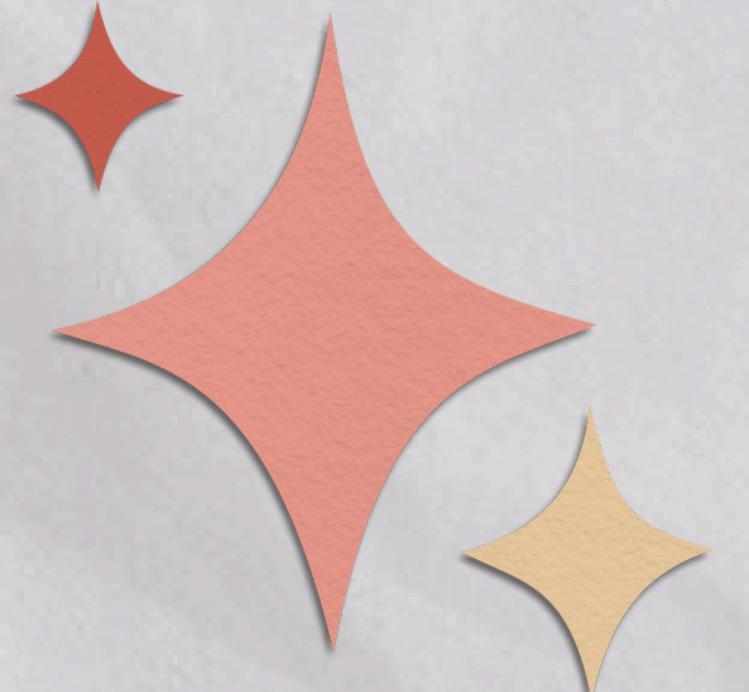
Problem Statement : 03

Team : Vibe Coders



Presented By

- Kshitij Marwah
- Dhruv Gupta

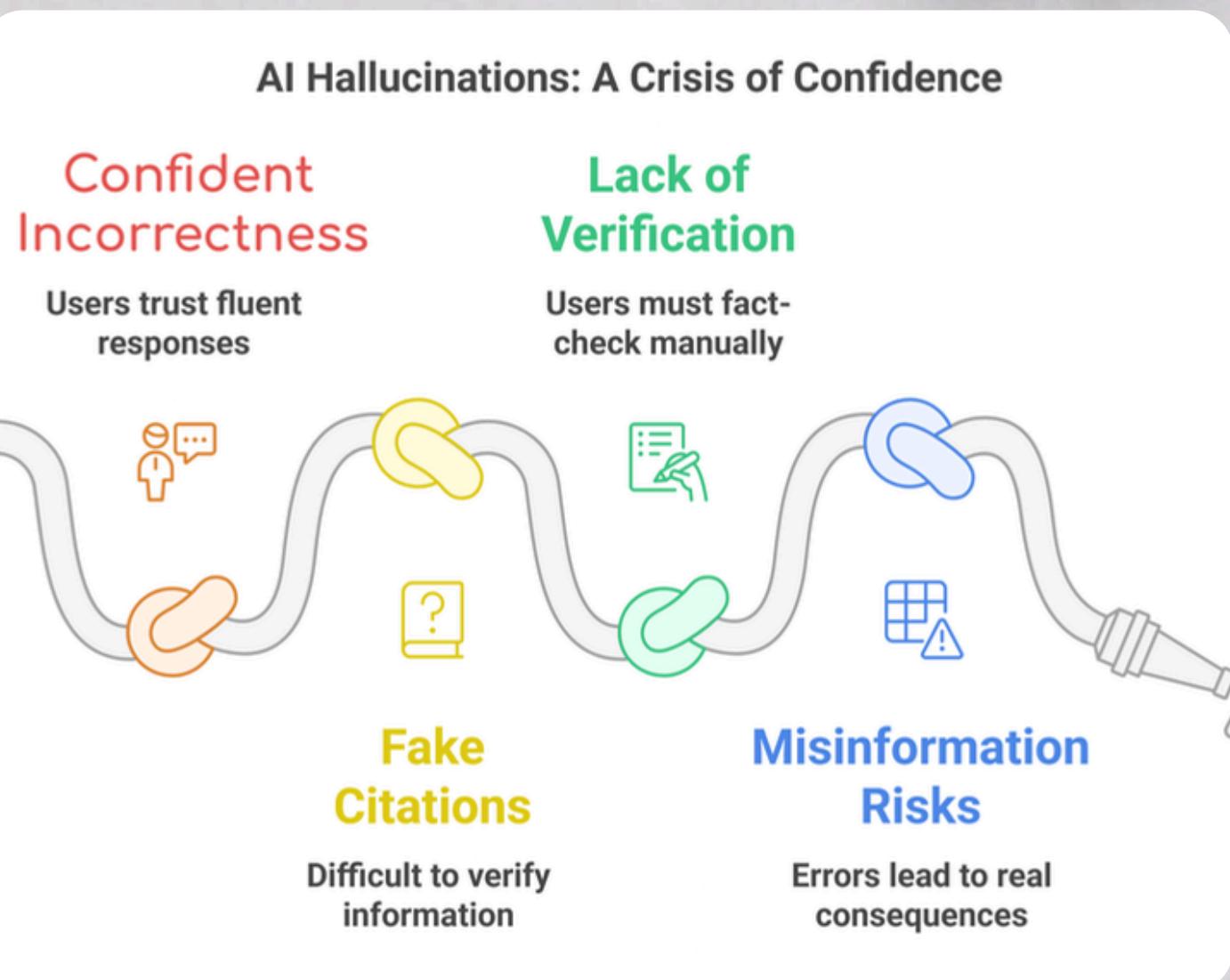


BYE
QUEST

PROBLEM STATEMENT

Generative AI systems often produce factually incorrect information and fake citations with high confidence, making it difficult for users to trust AI-generated content and increasing the risk of misinformation and misuse.

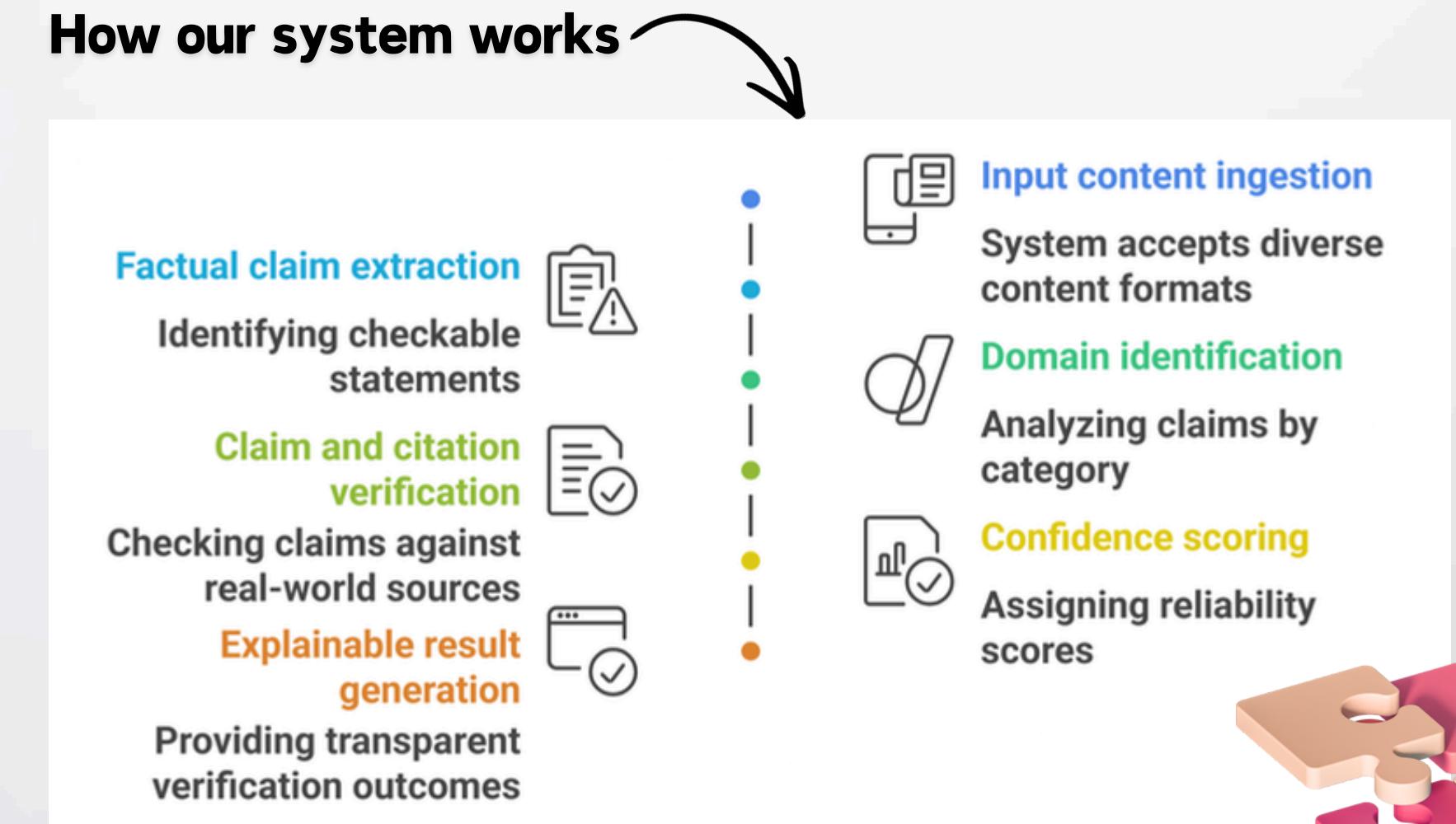
- Confident but incorrect AI-generated information
- Fake, broken, or non-existent citations
- Lack of trust and verification mechanisms
- Risks of misinformation and misuse





To address AI hallucinations and fake citations, we propose a claim-level verification system that automatically checks factual statements and citations against real, trustworthy sources and presents transparent confidence scores.

How our system works

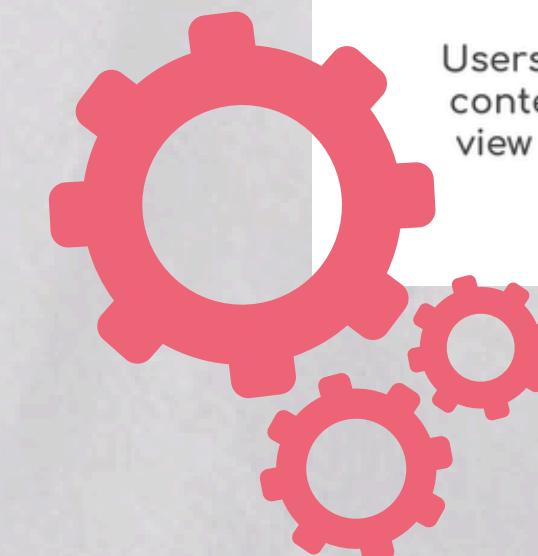
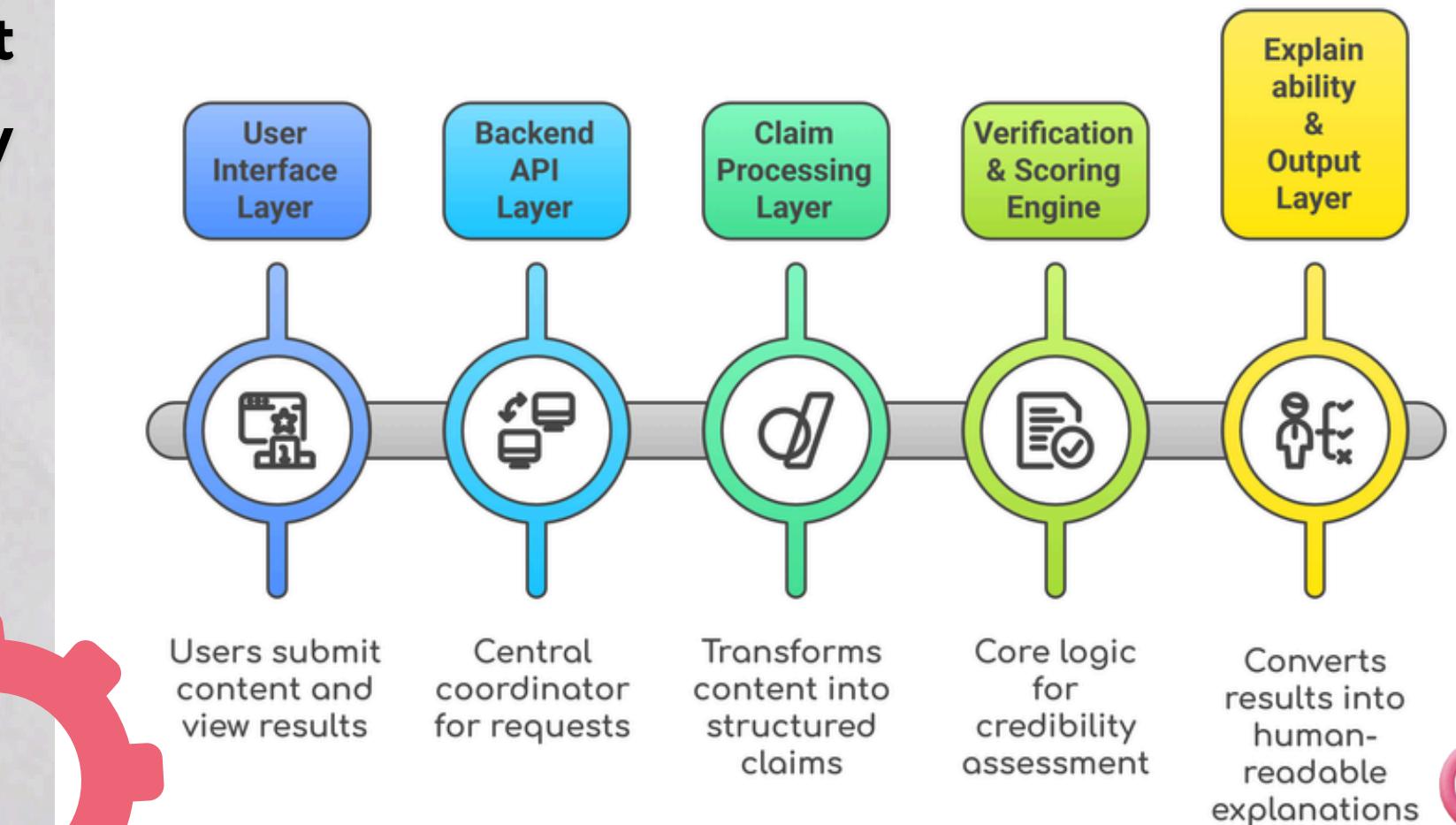


SYSTEM ARCHITECTURE

The system follows a modular and layered architecture that separates user interaction, verification logic, and explainability to ensure scalability, reliability, and maintainability

The System Layer System is given below :

1. User Interface Layer
2. Backend API Layer
3. Claim Processing Layer
4. Verification & Scoring Engine
5. Explainability & Output Layer



INNOVATION & KEY DIFFERENTIATORS

The innovation of this system lies in how it controls AI behavior, shifting from generation-centric systems to a verification-first and evidence-driven approach.

What makes us
different

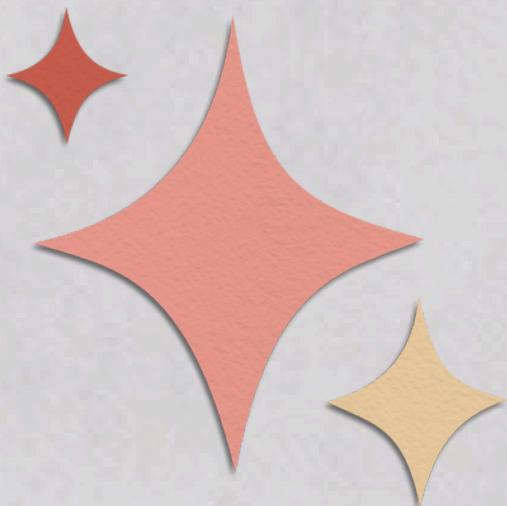
Traditional Systems

- Trust AI-generated answers
- AI decides correctness
- Single response-level validation
- Limited or fake citations

Vibe Verifier

- Trust verified evidence, not AI
- Deterministic verification logic
- Claim-level validation
- Real, verifiable citations



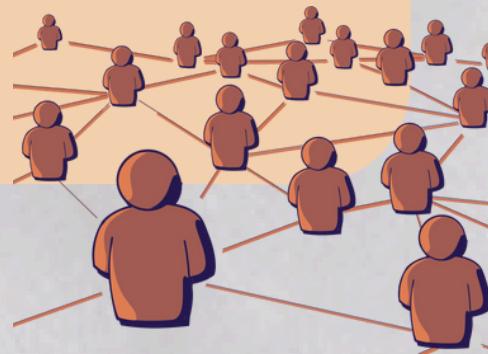


IMPACT

By verifying AI-generated claims and citations, the system improves trust, safety, and accountability, enabling responsible use of AI across both society and industry.

SOCIAL

- Reduction in misinformation
- Safer AI usage in sensitive domains
- Improved trust in AI systems



MARKET

- Enterprise AI validation layer
- Research & education support
- Compliance and risk mitigation





TECHNOLOGY

The system uses a modern full-stack architecture with open-source AI models, ensuring transparency, scalability, and production-level reliability.

~~NEXT~~.js

FRONTEND

- Next.js
- React
- Tailwind CSS



BACKEND

- FastAPI
- RESTful APIs



LANGUAGES

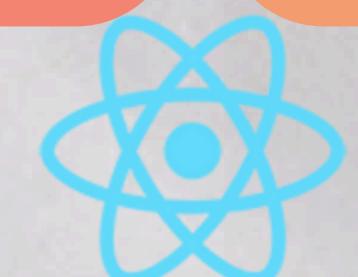
- Python
- TypeScript
- JavaScript



FastAPI

AI & NLP

- Sentence Transformers (Semantic Similarity)
- NLP Tokenization & Claim Extraction Models



VERIFICATION & LOGIC

- Rule-based verification engine
- Credibility & contradiction analysis



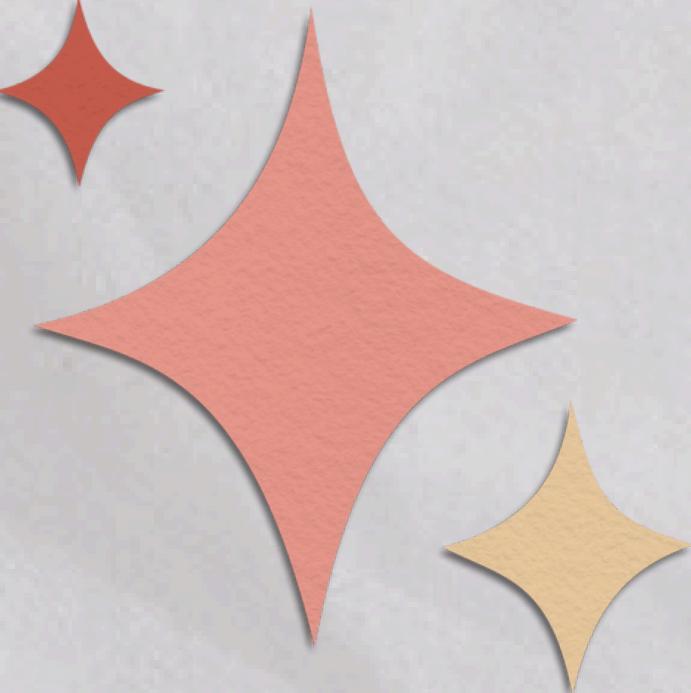
DATA & EXTERNAL SERVICES

- Real-time web search APIs
- Document parsing tools (PDF / DOCX)



CONCLUSION

- VibeVerifier addresses a critical limitation of generative AI by shifting trust away from confident outputs toward verifiable evidence. By validating factual claims and citations using real sources and deterministic logic, the system reduces hallucinations and improves the reliability of AI-generated content.
- By combining claim-level verification, explainable results, and a production-ready architecture, the solution promotes responsible and trustworthy AI usage. It can be applied across research, education, and enterprise systems where accuracy, transparency, and accountability are essential.



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THANK YOU

