VeriFact

REAL-TIME CLAIM VERIFICATION FOR MEETINGS

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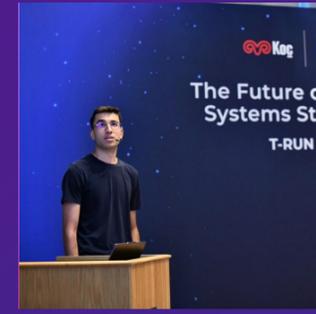
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⚠️ The Problem

Critical challenges in modern meeting environments

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Human Memory Errors

Presenters may misremember details or figures.

2

Unchecked Sources

Supporting documents are rarely checked in real time.

3

Fast-Paced Discussions

Participants can't validate claims during fast-paced discussions.

Without verification, misinformation spreads unchecked

The Solution

VeriFact verifies spoken claims against pre-uploaded reference documents in real time.

Live Transcription - VeriFact Active

[00:12:34] Welcome everyone to our Q4 planning meeting.

[00:12:45] Let's review our performance targets for next quarter.

[00:13:15] We need to align our teams on this objective.

[00:13:25] Our profit goal for Q1 is 3 million dollars.

⊗ Claim Refuted

Actual Q1 profit goal: **$2.5 million**

📄 Sources: Strategic_Plan_2025.pdf (p. 8)

1. Real-Time Speech Recognition

AI transcribes meeting audio and identifies factual claims

Document Retrieval & Analysis

System searches uploaded reference documents for relevant information

Instant Verification

Claims are marked as Supported, Refuted, or Uncertain with citations, which are then displayed on a special pane within the Zoom application.

Key Features & Use Cases

Real-time verification with voice-activated assistance across high-stakes industries

Real-Time Claim Verification

Supported
Matches reference documents

Refuted
Contradicts documents

Uncertain
Insufficient/Conflicting evidence

Voice-Activated Q&A

🎤 Hands-free commands

🔊 ▪ Voice Input
"Hey Agent, fetch our 2019 profit goals according to our financial reports."

💬 Bot:
Your 2019 profit goals were **8 million dollars**.
📄 Sources: Finance_2019.pdf, 2019_Commitee_Report.doc

Real-World Applications

Finance
Regulatory compliance verification

Healthcare
Cross-checking drug trial data

HR
Verifying internal policies

Why Now?

Perfect convergence of market demand, technology, and regulatory pressure

Massive Market

500M+
Daily users on Zoom, Teams, Google Meet

$15B+
AI workplace tools market (2025)

Technology Ready

- Real-time transcription APIs now available
- Low-latency RAG pipelines feasible
- LLM fine-tuning accessible and proven
- Not possible just a few years ago

Remote Work Explosion
Meetings are now the backbone of distributed organizations. Quality matters more than ever.

Misinformation Pressure
Single factual errors cost millions in corporate, legal, and healthcare contexts.

AI Adoption Rising
Enterprises already use AI copilots. Demand is shifting toward specialized, trustworthy tools.

The market is ready. The technology is ready. The timing is now.

Competitive Advantage

First mover in real-time claim verification with unique document flexibility

Existing Solutions

- Otter.ai
- Fireflies.ai
- Microsoft Copilot
- Zoom AI Companion
- ✓ Transcription & summarization
- ⊗ No real-time fact verification
- ⊗ No document-grounded checking

VeriFact

Real-Time Verification
Claims checked as spoken

Evidence-Based
Supported / Refuted / NEI

Dual Document Model
Permanent + temporary

Dual Document Model — A Unique Approach

Permanent Documents
Uploaded once, available across all meetings
e.g., Policies, regulations, reports

Temporary Documents
Uploaded for specific session only
e.g., Agenda, proposals, ad-hoc refs

🎯 **No competitor offers this level of document lifecycle control**

Technical Architecture

Built on proven technology with seamless Zoom integration

Zoom Bot Integration

- Join meetings on-demand or scheduled
- Side panel for real-time verification
- Document management interface

Audio Capture

- Separate audio per participant
- Speaker identification built-in
- Whisper STT for transcription

Voice Q&A Agent

- Natural language queries
- Trigger: "Hey Agent"
- Document-based responses

Upload/Delete Documents

Real-Time Transcription

GDPR Compliant

AI & ML Foundation

Built on proven research and production-ready models

Claim Detection

ClaimBuster - identifies check-worthy claims

Proven research tool from UT Arlington, used by professional fact-checkers to identify factual statements worth verifying

Claim Verification

Fine-tuned Classification LLM on FEVER dataset

- 110M parameters
- ~440 MB on-disk
- 185K+ training claims

RAG Architecture

Retrieval-Augmented Generation for evidence-based answers

1 Retriever
Semantic search via embeddings + Neo4j graph relationships

2 Verifier
Classifies as Supported, Refuted, or Not Enough Information

3 Real-Time Display
Returns verdict with evidence citations within few seconds

Precision & Recall
Primary success metrics

Few Seconds
Real-time verification target

Retrieval Accuracy
Evidence quality measure

Classification
End-to-end performance

Cost & Security

Manageable initial investment with privacy-first design

$ Infrastructure

Training Requirements
RTX 4080 GPU (12GB VRAM) sufficient for model fine-tuning

One-time training cost - minimal if team GPU available

Deployment
Standard cloud hosting for initial deployment

Can scale infrastructure as user base grows

ⓘ Costs scale with usage - optimizations implemented as needed

🔒 Privacy & Security

GDPR & Compliance
Data processing and memory systems comply with GDPR, SOC-2, and regional privacy standards.

Permission-Scoped Actions
Agents operate under scoped permissions — each API, document, or tool call is explicitly authorized.

Transparency Logs
Every tool call, data access, or reasoning chain is recorded in an auditable log for compliance and explainability.

Data Encryption
User documents and transcriptions encrypted in database with user-controlled deletion.

Privacy-conscious design from the ground up

Minimal
Initial Setup Cost

Dynamic
Infrastructure Scaling

Compliant
Privacy Standards

Development Plan

Three-phase approach from proof of concept to production-ready system

Phase 1
Proof of Concept

- ✓ Zoom SDK integration for speech-to-text
- ✓ Lightweight claim detector (ClaimBuster)
- ✓ Document upload & embedding (vector/graph database)

Phase 2
Core System

- ✓ RAG pipeline for evidence retrieval
- ✓ Claim verification model (FEVER dataset)
- ✓ Real-time color-coded results in Zoom pane

Phase 3
Enhanced Features

- ✓ Interactive Q&A bot ("Hey Agent!")
- ✓ Secure storage with GDPR compliance
- ✓ Performance optimization (within few seconds)

● Foundation — — — ● Core Features — — — ● Production Ready

Goal: Real-time, accurate, privacy-compliant fact verification

VeriFact's Novelty

What sets us apart from traditional meeting tools

Real-Time Fact Verification

Dynamic claim analysis during conversation

Seamless Integration

Embedded into collaboration tools like Zoom

Domain Flexibility

Adaptable to any industry; user uploads context docs

Technical Advancement

Low latency, high accuracy, continuous processing

Thank You

For your time and consideration in reviewing the VeriFact innovation pitch

We look forward to your guidance and feedback

Together, we can build the future of truthful communication