

ChatAssist AI — Model Documentation

1. Overview

ChatAssist AI is a conversational language model designed to help users with task automation, content creation, troubleshooting, and customer support. It uses natural language processing (NLP) to generate human-like responses.

Use cases include:

- Customer support chatbots
 - Writing assistance (emails, blog posts, technical docs)
 - Learning and tutoring support
 - API-based automation
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2. Model Architecture (High-Level)

- **Type:** Transformer-based Large Language Model (LLM)
- **Framework:** PyTorch
- **Training Method:** Supervised fine-tuning + Reinforcement Learning from Human Feedback (RLHF)
- **Input:** User text prompt
- **Output:** AI-generated text response

Flow: User Prompt → Tokeniser → LLM → Decoding → Final Response

3. Training Data

Property	Details
Dataset Sources	Web data, books, documentation, public forums
Languages	Primarily English (supports others)
Total Tokens	~300 billion
Sensitive Data?	Personal data removed where possible
Licensing	Mixture of open-source, licensed, and synthetic training data

Ethical Notes:

- Data filtered for harmful or hateful content.
 - No personal user data stored.
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4. Performance & Evaluation

Task	Metric	Score
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General Chat Accuracy	ROUGE-L	0.78
Code Generation Success	Pass@1	0.62
Grammar & Fluency	BLEU Score	0.89
Response Safety	Moderation	97% compliance

5. Limitations & Known Issues

- May generate inaccurate or hallucinated information.
- Limited real-time awareness (no internet browsing unless enabled).
- Can reflect bias present in training data.
- Requires guardrails for medical, legal, or financial advice.

6. API Usage (Example)

Endpoint: POST <https://api.chatassist.ai/v1/generate>

Headers: Authorization: Bearer <API_KEY> Content-Type: application/json

Request Body Example:

```
{
  "prompt": "Explain REST APIs in simple terms",
  "max_tokens": 200,
  "temperature": 0.7
}
```

Response Example:

```
{
  "response": "A REST API allows different software systems to communicate using HTTP methods like GET and POST.",
  "tokens_used": 87
}
```

7. Version History

Version	Date	Description
1.0	06 Nov 2025	Initial Model Documentation

8. Contact / Maintainer

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