

E-commerce Assistant

Mindpulse

Our Team



Robert Komar

Dedicated to the exploration and application of Artificial Intelligence, his expertise encompasses a broad spectrum, including heuristic search algorithms, classical machine learning algorithms, and the construction of complex systems using large language models.



Bartosz Kozakiewicz

Expert in software development and Artificial Intelligence, crafting elegant codebases and exploring cutting-edge AI technologies. With a focus on building robust software systems and pushing the boundaries of AI, he thrives at the intersection of these fields.



Wojciech Maciejewski

An ML Engineer since 2018 with a strong Computer Science foundation, committed to bridging the gap between AI and business demonstrated through participation in numerous hackathons and AI projects, with a focus on innovation and specialization in GenAI.

Problem

Online shops want to increase their sales by:

- Boosting conversion rates from-visitor-to-buyer.
- Reducing the cart abandonment rate.
- Gaining more long-term customers by enhancing customer experience.



Solution

Smart llm-based chatbot mirroring a shop assistant:

- Recommends best products based on customer needs.
- Compares products, explaining differences.
- Provides technical details and specifications.
- Suggests compatible products and ongoing discounts.
- Handles customer service inquiries.



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Technical View - retrieval mechanism

• Milvus vectorstore

- Scalable vectorstore backbone
- Fast openai ADA embedding
- Products information
- Distilled domain knowledge from products using RAPTOR scheme
- Domain knowledge from FAQ / specialistic blogs
- Knowledge about existing discounts
- SOTA retrieval
 - Content-aware filtering
 - Hybrid search (semantic + BM25)
 - Multi-query with re-ranking
- Integration with existing CRM
 - For customer-centric actions (e.g. checking order status)







Technical View - chatbot

- Gemini as a backbone
- Continual prompt learning
 - Anchor answers as a few-shot learning examples
 - Creating new templates based on successful chats
- Guardrails
 - Ensuring the models adhere to AI Safety principles

Jemin

- Possibility of hosting models on-premise
 - E.g. Gemma

What we bring to our clients: Main values

- Better customer experience (via customer service)
- AOV (average order value) goes up
- Cart abandonment rate decreases
- Conversion rates increase
- Sales goes up

67%

increased sales thanks to Chatbots according to business leaders

62%

of **clients prefer** talking with chatbot rather than waiting for human assistant

src

conversion rates achieved with chatbots src

up to **70%**

increase in AOV (average order value) thanks to chatbots

What we bring to our clients: Secondary Values

- Better understanding of clients via analytics
 - Better SEO (Search Engine Optimization) targeting real clients' queries.
 - Page layout optimization for better UX.
 - Offer advisements (new products, discounts)
 - Proposals for new marketing campaigns
- Decrease in customer service workload bringing additional cost savings.

Customer-centric approach

- We target polish brands
- We target electronics stores
- We solve real customers' issues
- We know our clients

Portal	Interested in AI (based on LinkedIn posts)	Has Chatbot	Has LLM Chatbot
Allegro	YES	YES	NO
mediaexpert.pl	Don't know	NO	NO
empik	YES	YES	NO
euro.com.pl	Don't know	NO	NO
Ceneo	YES	NO	NO
morele.net	YES	YES	YES
OleOle!	Don't know	NO	NO
Komputronik.pl	YES	NO	NO
Neo24.pl	Don't know	NO	NO
Vobis.pl	Don't know	NO	NO
e-cyfrowe.pl	Don't know	NO	NO
Electro.pl	Don't know	NO	NO
ProLine.pl	Don't know	NO	NO
North.pl	Don't know	NO	NO
Neonet.pl	Don't know	NO	NO
<u>x-kom.pl</u>	YES	YES	NO
Agdmaster.com	Don't know	NO	NO
Zadowolenie.pl	Don't know	NO	NO
Mediamarkt.pl	YES	YES	NO
Zdrovi.pl	Don't know	NO	NO
Mall.pl	Don't know	NO	NO
eMAG.pl	Don't know	NO	NO

Business View

Business Model

- Contract with customers + maintenance fee
- Move to SaaS and subscription-base in the future

Competition

• No direct competition

Summary

- Expertise in technical solutions
 - Experience with LLMs, RAGs, AI agents and ML
 - Experience with webdev, E2E solutions and living systems
- Customer-centric approach
 - Thorough market research was made
 - We want to focus on specific customers first and scale up later
- Fast prototyping mindset
 - PoC already built
 - We target specific audience first e-commerce platforms that focus on electronic

Thank you for your attention

