

# Review of: "SnakeChat: a conversational-AI based app for snake classification"

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**Potential competing interests:** No potential competing interests to declare.

Your approach to creating SnakeChat, a conversational AI (CAI) focused on snake classification, leveraging OpenAI APIs, and extending the capabilities of SnakeFace, is commendable. Here are some opinions on the key points you've raised:

1. **Leveraging OpenAI APIs:** Using OpenAI APIs as a foundation for SnakeChat is a smart strategy. It allows you to tap into the power of pre-trained models without the need to build a CAI from scratch. This not only saves development time but also benefits from the continuous improvements and advancements in OpenAI's models.
2. **Human-like Predictions:** Focusing on providing more human-like predictions rather than just species and probability adds a user-friendly dimension to your CAI. The shift from a task-oriented to a chat-oriented CAI is a testament to the flexibility and adaptability of OpenAI's APIs.
3. **Hybrid CAI:** The ease with which you can transition from a task-oriented CAI to a hybrid or chat-oriented CAI highlights the versatility of the OpenAI APIs. This flexibility allows for creative expansions and adaptations of your model based on evolving project requirements.
4. **Future Steps:** Your outlined next steps, including adding more snake species, enhancing predictions with additional information, and testing new algorithms, demonstrate a forward-thinking and iterative development approach. This reflects a commitment to continuous improvement and adaptability.
5. **Integration with iNaturalist:** Integrating external data sources like iNaturalist to gather information about snake sightings and geographical data is a wise move. It not only enriches the predictions but also adds a layer of real-world relevance to your CAI. The potential to call iNaturalist functions in the future opens up avenues for expanding the system's capabilities.
6. **Advances in AI:** Your recognition of the significant advances in artificial intelligence, particularly in computer vision and conversational AI, aligns with the broader trend in the field. The shift towards public APIs has democratized access to powerful AI capabilities, empowering developers to build on top of existing models and create innovative solutions.
7. **Platform Potential:** Viewing AI models as building blocks for programmers rather than final tools is an insightful perspective. The modular nature of public APIs fosters a collaborative ecosystem where developers can combine and extend functionalities, driving innovation across various domains.

In conclusion, your approach to SnakeChat demonstrates a strategic use of AI technologies and an awareness of the evolving landscape. The incorporation of external data sources, the focus on user-friendly responses, and the adaptability of your model contribute to a promising project with potential for further advancements in snake classification and beyond.

#### **\*\*Advantages:\*\***

1. **\*\*Time and Resource Efficiency:\*\*** Leveraging OpenAI APIs allows you to save time and resources by building upon pre-trained models. This is particularly advantageous when compared to starting from scratch, enabling a quicker development cycle.
2. **\*\*Flexibility and Adaptability:\*\*** The flexibility of OpenAI APIs allows for easy adaptation to different tasks and requirements. Your ability to shift from a task-oriented to a chat-oriented CAI illustrates this adaptability, making it easier to align the system with user preferences and needs.
3. **\*\*User-Friendly Predictions:\*\*** Focusing on more human-like predictions enhances the user experience. Providing textual responses instead of just species and probability can make the system more approachable and engaging for users who may not have a technical background.
4. **\*\*Potential for Integration:\*\*** The integration of external data sources, such as iNaturalist, adds valuable information to your predictions. This can lead to more accurate and context-aware responses, improving the overall performance of the system.
5. **\*\*Iterative Development:\*\*** Your planned next steps, including adding more species, enhancing predictions, and testing new algorithms, demonstrate an iterative development approach. This allows for continuous improvement and refinement based on feedback and evolving requirements.

#### **\*\*Disadvantages:\*\***

1. **\*\*Dependency on External APIs:\*\*** Relying on external APIs, such as OpenAI and iNaturalist, introduces a dependency on the availability and stability of these services. Any disruptions or changes in these APIs could impact the functionality of your system.
2. **\*\*Ethical Considerations:\*\*** The use of AI, especially in tasks involving living organisms, raises ethical considerations. Ensuring the responsible and ethical use of the technology, addressing biases, and respecting user privacy are important aspects that need attention.
3. **\*\*Limited Control over Training Data:\*\*** While OpenAI provides powerful pre-trained models, you have limited control over the training data and the biases present in these models. It's crucial to be aware of potential biases and take steps to mitigate them, especially in applications involving species classification.
4. **\*\*Scalability Challenges:\*\*** As you plan to add more species and information to enhance predictions, scalability challenges may arise. Handling a larger dataset and expanding the capabilities of the system without compromising

performance can be a complex task.

5. **Integration Complexity:** Integrating external data sources, like iNaturalist, adds complexity to the system. Ensuring seamless integration, maintaining data accuracy, and addressing potential conflicts or inconsistencies in the information retrieved may require ongoing attention.

6. **User Understanding and Expectations:** Users may have varying levels of understanding regarding the system's capabilities and limitations. Managing user expectations and providing clear communication about what the CAI can and cannot do is crucial to avoid disappointment or misunderstandings.

In conclusion, while your approach has numerous advantages, addressing the potential challenges, such as dependencies on external APIs and ethical considerations, will be key to the success of your project. Continued monitoring, updates, and responsible implementation will help overcome these challenges and contribute to the long-term success of SnakeChat.