

A man with a beard, wearing a dark beanie and a jacket, is shown in profile. He is holding a small fish in his left hand and a smartphone in his right hand, looking at the screen. The background is a warm, orange-toned sunset or sunrise over a body of water. A large, white, stylized fish icon is positioned in the upper right area of the image.

# FinFinder

**Text-based chatbot  
for identifying fish species  
in german waters**

# Vision & Purpose

## Objective:

- A **text-based, interactive** chatbot for fish species identification
- The bot **asks follow-up questions** to reach a **confident identification**
- Initially focused on species in the **German North/Baltic Seas + lakes**

## Key Features:

- **Text-Based:** just describe what you see
- **Interactive:** The bot engages in a conversation to clarify uncertain inputs
- **Confidence-Driven:** Makes **identifications only when sufficiently certain**

# Why Not Image-Based?

## Existing tools (e.g., FishVerify, Seek):

- Mostly **US-based** species focus
- Rely entirely on **image input**, without dialogue

## Why image-based recognition falls short:

- **Night fishing:** Poor lighting conditions
- **Dirty hands or wet phone:** Hard to take a clean photo
- **Glare or reflections** because of the water on the fish
- Fish might **not look “textbook”** (e.g., injured, dirty, in motion)
- **More practical** to describe the fish via **voice or text**



# Prototype Example

## Fin Finder - Chatbot

Welche Merkmale hat dein Fisch? Größe, Farbe, Lebensraum



Der gesuchte Fisch hat rote Augen und lebt in einem See



Könnte es sich um ein Rotauge handeln?

Um sicherzugehen und andere Möglichkeiten auszuschließen, möchte ich noch fragen: Wie groß ist der Fisch ungefähr? Und haben die Flossen eine rötliche Färbung?



Der Fisch ist ca. 20 cm groß!



In diesem Fall handelt es sich höchstwahrscheinlich um das Rotauge.

Beschreibe deinen Fisch (Größe, Farbe, Lebensraum, Schwanzflosse, ...)



# Next Steps & Questions

- **Find and build a structured database**  
of relevant North & Baltic Sea species
- **Model and create** prototype with full data
- **Implement intelligent questioning**  
to clarify uncertain cases
- **Find how to deal with different target groups**  
e.g. special fischer language and generic words.



## Questions

- How to **provide data best** to LLM?
- What is the best way to **validate different approaches**?