

The background features abstract, hand-drawn red lines in the corners, creating a modern, artistic feel. The lines are thin and fluid, with some forming loops and others extending towards the edges.

Matching Consumer Health Questions to Specialists: Chat-Based App Interface

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Issue at hand:

Phase Two of building online
website-based chat feature for health
consumers



**Can we classify patient questions
into categories to direct them to
the appropriate specialist?**

Distribution of Data



Question Examples

Internist

	message	Summary	specialty
906	hi. i'm a student that suffers from Pectus excavatum (funnel chest), and i need help to pass it. please give me some way to get the solution of this problem. waiting for your answer. please need help!	What are treatments for pectus excavatum?	pulmonologist

	message	Summary	specialty
525	SUBJECT: ALT in blood\nMESSAGE: My ALT is 45, AST is 56. What is best way or test to know the reason for these increased values in Blood. And any treatment possible without knowing the reason. I am a [LOCATION] having retired life. I feel 99-100 F most of the time, Age 73, wt 87 kg, no alcohol, no smoking etc.	What are the causes of and treatments for elevated ALT and AST?	gastroenterologist

Pharmacist

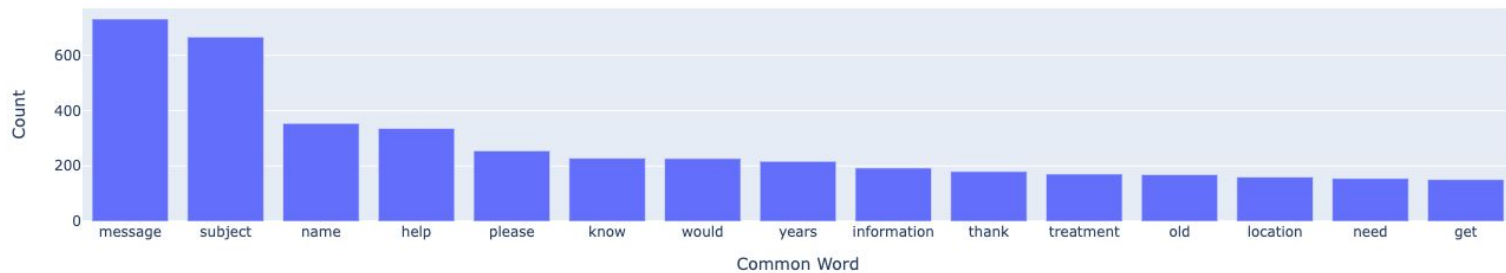
	message	Summary	specialty
855	SUBJECT: taking oxycodone 5mg\nMESSAGE: what will happen to me if my doctors just stop my oxycodone 5mg 2 every 4 hours and iv been on it for three ahalf weeks? and how do i have them wean me off slowly?	How do I stop taking oxycodone?	pharmacist

	message	Summary	specialty
386	SUBJECT: contents of barium sulfate solution\nMESSAGE: I have your Readi-Cat 2 barium sulfate solution. 21% w/v, 2.0% w/w. I need to know of this contains any gluten or dairy. Also, do you know if it contains any salicylates or anything similar to aspirin?	What are the ingredients of Readi-Cat 2 barium sulfate solution, and is it gluten and dairy free?	pharmacist



Common Words

15 Most Common Words from Submitted Messages



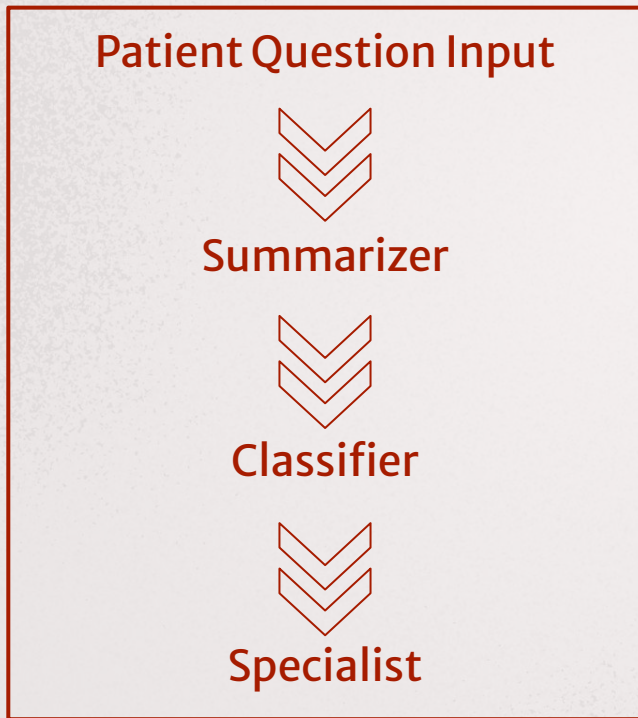
Initial Modeling:

97.9% Accuracy, but predicting incorrectly

Internist	VS	Pharmacist
<ul style="list-style-type: none">• Problem• Disease• Syndrome• Cause• Treat• Stroke• Diet• Age• Stroke• Hernia• Blood		<ul style="list-style-type: none">• Used• Drugs• Medication• Meds• System• Dosage• Instructions• Ingredients• Pharmacy• Gluten• Zinc



Final Model



98.37%

Accuracy Score



STREAMLIT

Let's see it in action!



Thanks!

Do you have any questions?

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