

AI and Underwriting

The background features a complex network of thin, black and gold circuit lines that flow across the frame. These lines are overlaid on several large, semi-transparent circles in shades of light blue, beige, and grey, creating a layered, futuristic aesthetic.

Cautionary Tales

Who am I?



Why It Matters

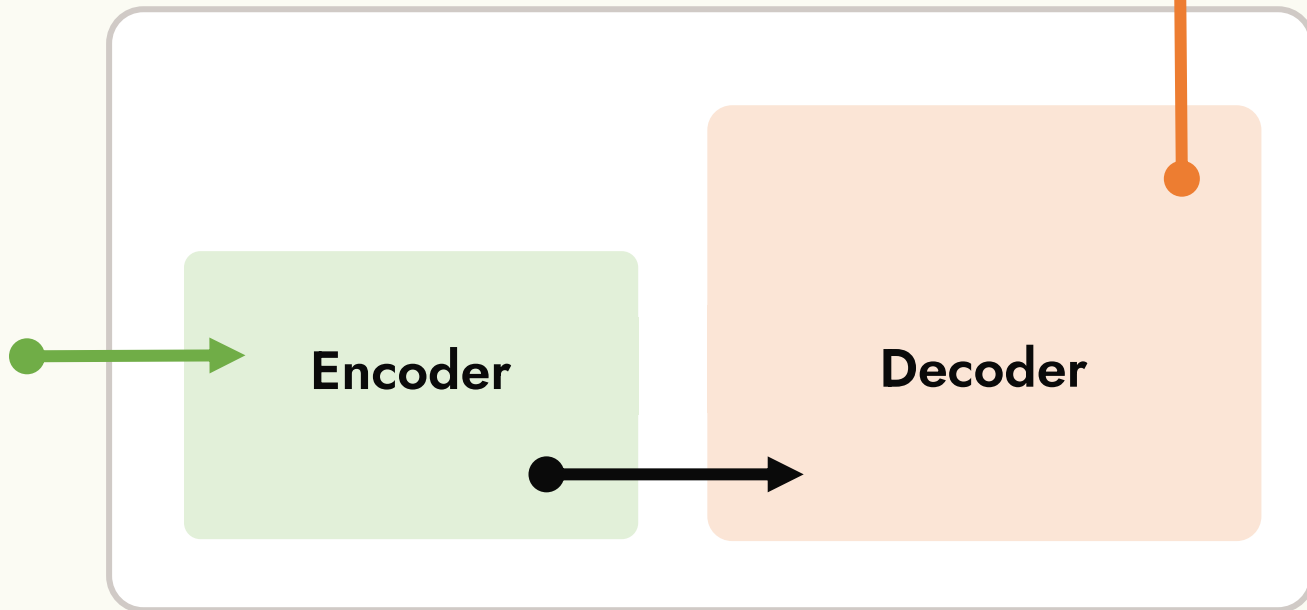
The Underwriter's Guide to the Large Language Models (LLMs)

What is GenAI?

INPUT

Rx
(Amiox)
Amoxicillin 500mg Cap #21
Sig: 1 cap 3X a day for
seven days.

Transformer



OUTPUT

- **Medication:** Amoxicillin (brand name: Trimox)
- **Strength:** 500 mg
- **Form:** Capsules (Cap)
- **Quantity:** 21 capsules (#21)
- **Instructions (Sig):** Take 1 capsule three times a day (3X a day) for seven days (7 days).

Insuretech difference

SAMPLE INPUT

CONTACT NAME:	John Hancock		
PHONE (A/C, No, Ext):	(987) 654 - 3210	FAX (A/C, No):	(123) 555-6789
E-MAIL ADDRESS:	johnthebroker@hollywoodbrokers.com		
INSURER(S) AFFORDING COVERAGE		NAIC #	
INSURER A:	A Really Good Insurance Company	12345	
INSURER B:	Fire and Rain Insurance	67890	
INSURER C:			
INSURER D:			
INSURER E:			
INSURER F:			
REVISION NUMBER:			

BaseLLM

The problem

Poor quality inputs yield poor results .
Base LLMs have trouble extracting the correct information.

OUTPUT

```
contact.name: John Hamok
contact.phone: (*) 654-3***
contact.fax: can't read
contact.email: johnt*****broke*
coverage. insurer.a.name: A Really Good Insura any
coverage. insurer.a.naic: can't read
coverage. insurer.b.name: ire and Pain Insurance
coverage. insurer.b.naic: can't read
```

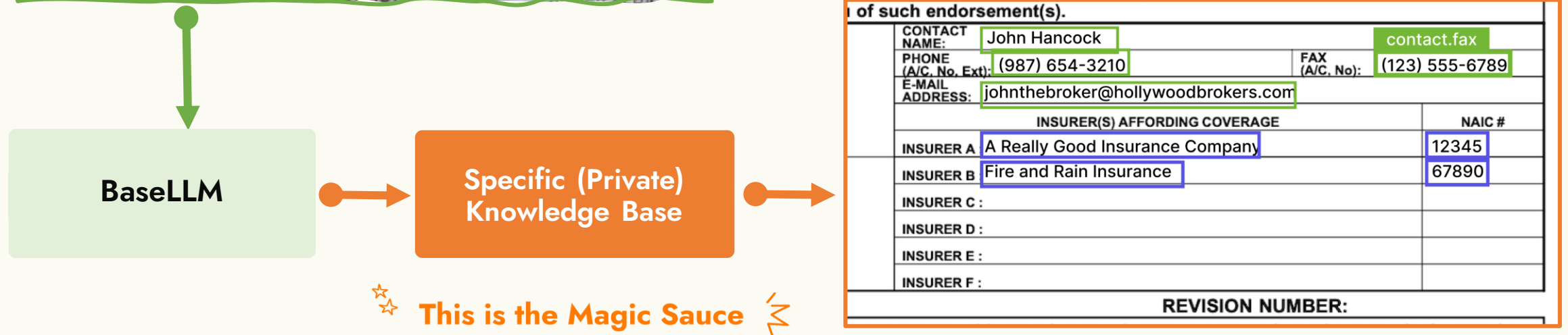
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INSURER C:			
INSURER D:			
INSURER E:			
INSURER F:			
REVISION NUMBER:			

Supervised Fine-tuning

Domain-specific model build and trained specifically for insurance data will always outperform a more generalized solution



AI-Insuretech Vendors:
3+ points to investigate

1 Where did you get training data?

Are you planning to use my data to train your models?

Are you, in fact, using ChatGPT? **This should be a no-no, since ChatGPT warns everyone against using any personal data**

2 How do you measure your accuracy?

What is your accuracy on specific entities such as lab results? Date of diagnosis?

Please send us your ground truth.

3 What is the cost of running the infrastructure?

Are they using expensive GPUs? They might run out of money pretty fast.

For example: A100 80GB will cost you \$ 50k a month just in infrastructure fixed costs, so some business models are unsustainable as insuretechs will inevitably need to raise prices to stay in business.

Bonus

Ask for cons – every approach has them!

Here are a few downsides to GenAI:

Sometimes it just makes up stuff...

Original

CBC With Differential/Platelet (6399,005009,1010)

Collection Date	12/07/2023	10/11/2023	08/30/2023	04/13/2023	03/20/2023	03/01/2023
Collection Time	11:32 AM	11:20 AM	12:13 AM	11:14 PM	11:02 PM	11:15 AM
Order Date	12/07/2023	10/11/2023	08/30/2023	04/13/2023	03/20/2023	03/01/2023
Result Date	12/07/2023	10/11/2023	08/29/2023	04/13/2023	03/21/2023	03/01/2023
Ordering Physician	Diamond, Paul	Cohen, Lauren	Diamond, Paul	Diamond, Paul	Diamond, Paul	Diamond, Paul
WBC	7.1 4.5 - 10.0 10	10.4H 4.5 - 10.0 10	11.3H 4.5 - 10.0 10	9.9 4.5 - 10.0 10	12.6H 4.5 - 10.0 10	12.4H 4.5 - 10.0 10
RBC	4.34L 4.00 - 6.20 10	4.69 4.60 - 6.20 10	4.65 4.60 - 6.20 10	4.83 4.60 - 6.20 10	5.50 4.60 - 6.20 10	4.61 4.60 - 6.20 10
HEMATOCRIT	39.7L 40.0 - 50.0 %	43.6 40.0 - 50.0 %	42.3 40.0 - 50.0 %	43.5 40.0 - 50.0 %	49.6 40.0 - 50.0 %	41.7 40.0 - 50.0 %
HEMOGLOBIN	14.0 13.5 - 18.0 g/dL	14.7 13.5 - 18.0 g/dL	14.3 13.5 - 18.0 g/dL	13.8 13.5 - 18.0 g/dL	15.6 13.5 - 18.0 g/dL	13.3L 13.5 - 18.0 g/dL
MCV	92.0 80.0 - 96.0 fL	93.0 80.0 - 96.0 fL	91.0 80.0 - 96.0 fL	90.0 80.0 - 96.0 fL	90.0 80.0 - 96.0 fL	91.0 80.0 - 96.0 fL

This entire column is missing



This date is hallucinated



Chat GPT

Test	10/11/2023	09/25/2023	04/13/2023	03/20/2023	03/01/2023
WBC	7.1 x10 ³ /uL	10.4H x10 ³ /uL	11.3H x10 ³ /uL	9.9 x10 ³ /uL	12.6H x10 ³ /uL
	4.5 - 10.0	4.5 - 10.0	4.5 - 10.0	4.5 - 10.0	4.5 - 10.0
RBC	4.34L x10 ⁶ /uL	4.69 x10 ⁶ /uL	4.65 x10 ⁶ /uL	4.83 x10 ⁶ /uL	5.50 x10 ⁶ /uL
	4.60 - 6.20	4.60 - 6.20	4.60 - 6.20	4.60 - 6.20	4.60 - 6.20
HEMATOCRIT	39.7L %	43.6 %	42.3 %	43.5 %	49.6 %
	40.0 - 50.0	40.0 - 50.0	40.0 - 50.0	40.0 - 50.0	40.0 - 50.0
HEMOGLOBIN	14.0 g/dL	14.7 g/dL	14.3 g/dL	13.8 g/dL	15.6 g/dL
	13.5 - 18.0	13.5 - 18.0	13.5 - 18.0	13.5 - 18.0	13.5 - 18.0
MCV	92.0 fL	93.0 fL	91.0 fL	90.0 fL	90.0 fL

Can't properly read all tables

	Com. Femoral		Sup. Femoral		Popliteal		Post. Tibial	
	R	L	R	L	R	L	R	L
Patent		✓		✓		✓		✓
Spontaneous								
Phasic								
Competent		✓		✓		✓		
Nonpulsatile								
Distal Aug.								

Original

Column is missing



Can't read checkmarks

	Com. Femoral		Sup. Femoral		Popliteal		Post. Tibial	
	R	L	R	L	R	L	R	L
Patent								
Spontaneous								
Phasic								
Competent	✓		✓		✓			
Nonpulsatile								
Distal Aug.								

Chat GPT



The Right Tool for the Right Job

“Hey ChatGPT. How should I close the presentation about you?”

Encourage Critical Evaluation: Encourage your audience to critically evaluate the information they receive from AI systems like ChatGPT. Remind them that while AI can be a powerful tool, it's not infallible, and human judgment is still essential.

**Thank You and stay in touch.
Really, I mean it:
natasha@friendlycares.com**