CTV NEWS /WINNIPEG

Forbes

Doctors are spending around 18.5 million hours on unnecessary paperwork.

Doctors spent 49.2% of their time doing paperwork.

1

OptimalTime

What is it

- ✓ **It's an end-to-end project.**

- ✓ **It's a GenAI app related to hospital systems.**

- ✓ **The model will generate Keywords from doctors' transcripts.**

- ✓ **The transcripts can be given in two types: text or speech**

- ✓ **The generated Keywords will help organize and summarize the data**
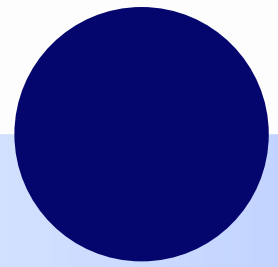
OptimalTime

DIAGNOSIS: Desires vasectomy.
NAME OF OPERATION: , Vasectomy.
ANESTHESIA: General.
HISTORY: Patient, 37, desires a vasectomy.
PROCEDURE: Through a midline scrotal incision, the right vas was identified and separated from the surrounding tissues, clamped, transected, and tied off with a 4-0 chromic. No bleeding was identified.
Through the same incision the left side was identified, transected, tied off, and dropped back into the wound. Again no bleeding was noted.The wound was closed with 4-0 Vicryl times two. He tolerated the procedure well. A sterile dressing was applied. He was awakened and transferred to the recovery room in stable condition.
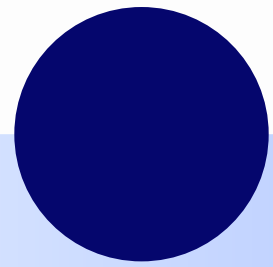
Keywords:

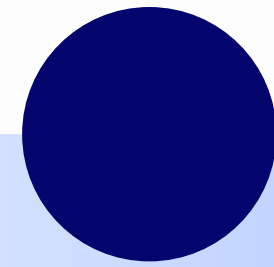urology, scrotal incision, right vas, bleeding, anesthesia, vasectomy
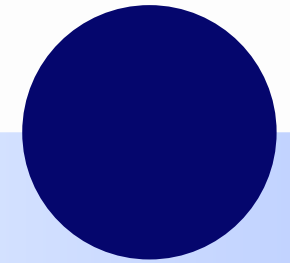
3

Problems we are solving:

Wasted time doing paper work

Lack of data
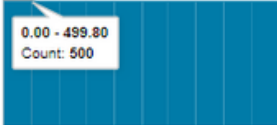
Disorded data

Lack of staff

Technical side:

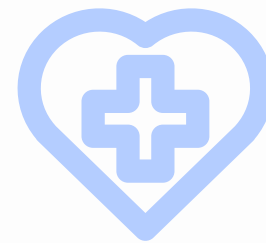| #	description	medical_specialty	sample_name	transcription	keywords
	Short description of transcription	Medical specialty classification of transcription	Transcription title	Sample medical transcriptions	Relevant keywords from transcription
0.00 - 499.80 Count: 500 ... 0 4998	**2348** unique values	Surgery 22% Consult - History a... 10% Other (3380) 68%	**2377** unique values	**2358** unique values	[null] 21% [empty] 2% Other (3850) 77%
0	A 23-year-old white female presents with complaint of allergies.	Allergy / Immunology	Allergic Rhinitis	SUBJECTIVE:, This 23-year-old white female presents with complaint of allergies. She used to have ...	allergy / immunology, allergic rhinitis, allergies, asthma, nasal sprays, rhinitis, nasal, erythemat...
1	Consult for laparoscopic gastric bypass.	Bariatrics	Laparoscopic Gastric Bypass Consult - 2	PAST MEDICAL HISTORY:, He has difficulty climbing stairs, difficulty with airline seats, tying shoes...	bariatrics, laparoscopic gastric bypass, weight loss programs, gastric bypass, atkin's diet, weight ...
2	Consult for laparoscopic gastric bypass.	Bariatrics	Laparoscopic Gastric Bypass Consult - 1	HISTORY OF PRESENT ILLNESS: , I have seen ABC today. He is a very pleasant gentleman who is 42 year...	bariatrics, laparoscopic gastric bypass, heart attacks, body weight, pulmonary embolism, potential c...

- **Collecting and Pre-processing the dataset "Medical Transcriptions" from Kaggle.**

- **Implementing the code to create and train the model.**

- **Evaluating the model.**

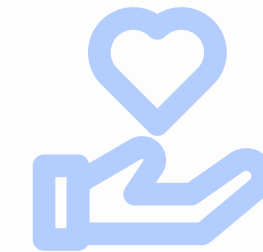- **Coding the speech to text feature.**

5

Our vision

Add option to scan hand-written files and treat them

Make the generated Keywords classified by date

Expand it on the national level

Challenges

+ Collecting more data to make the model more effiecient

+ Deployment Pipelines, Monitoring and Performance Tracking

THE TEAM

Med Amine Bacha
Pre-engine Student at MSE

Skander Haddar
Data Science Student at
ENETCOM

Yahyaa chammami
Data Science Student at
ESSAI

Malek Mtimet
Pre-engineering Student at
MEDTECH

Thank You!