

PARKIN-SNSE

THE PARKIN-SENSE TEAM

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Technology and Business

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Business and Finance

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PROBLEMS

10,000,000+

Cases Worldwide

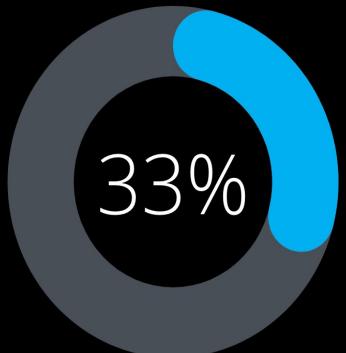
Second

Most Fatal Neurodegenerative Disease

38%

Accuracy of Top Diagnosis Technologies

CURRENT DIAGNOSES ISSUES



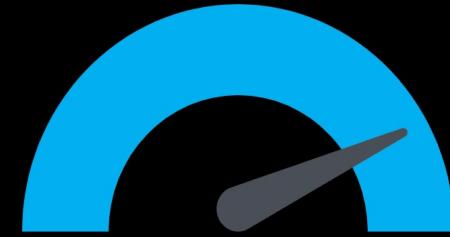
ONE IN THREE ARE
MISDIAGNOSED



DAYS TO MONTHS FOR
RESULTS

NOT COVERED BY MEDICARE

\$4,000+



INVASIVE AND
HOSPITAL VISIT
REQUIRED

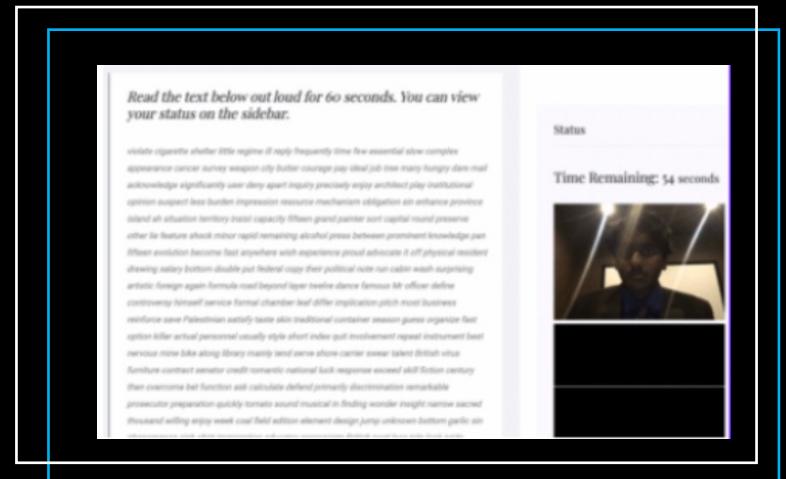
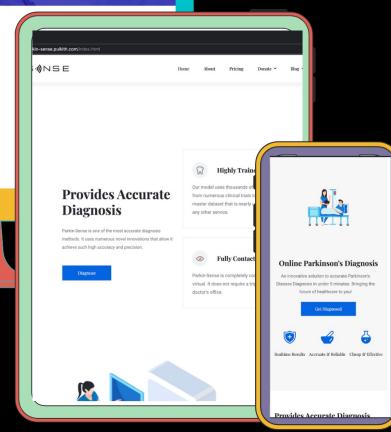
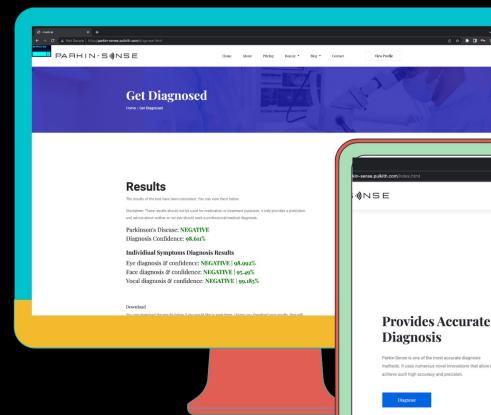
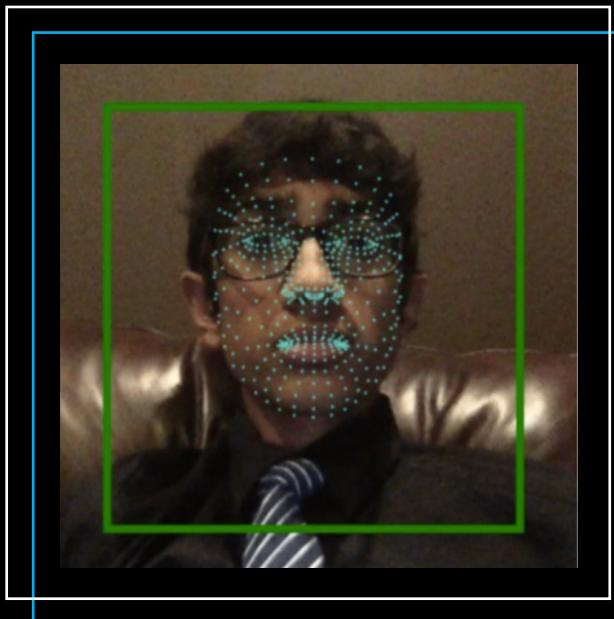
COVID-19

WITH COVID-19 ACCESS TO HEALTHCARE HAS
BEEN SEVERELY LIMITED, ESPECIALLY IN RURAL
AREAS, AND 3RD WORLD COUNTRIES

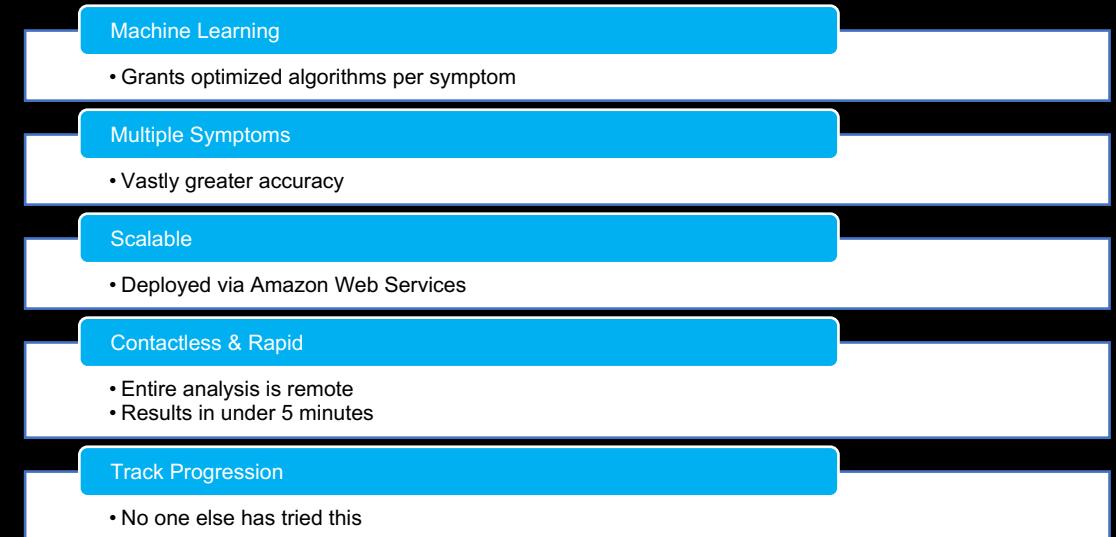
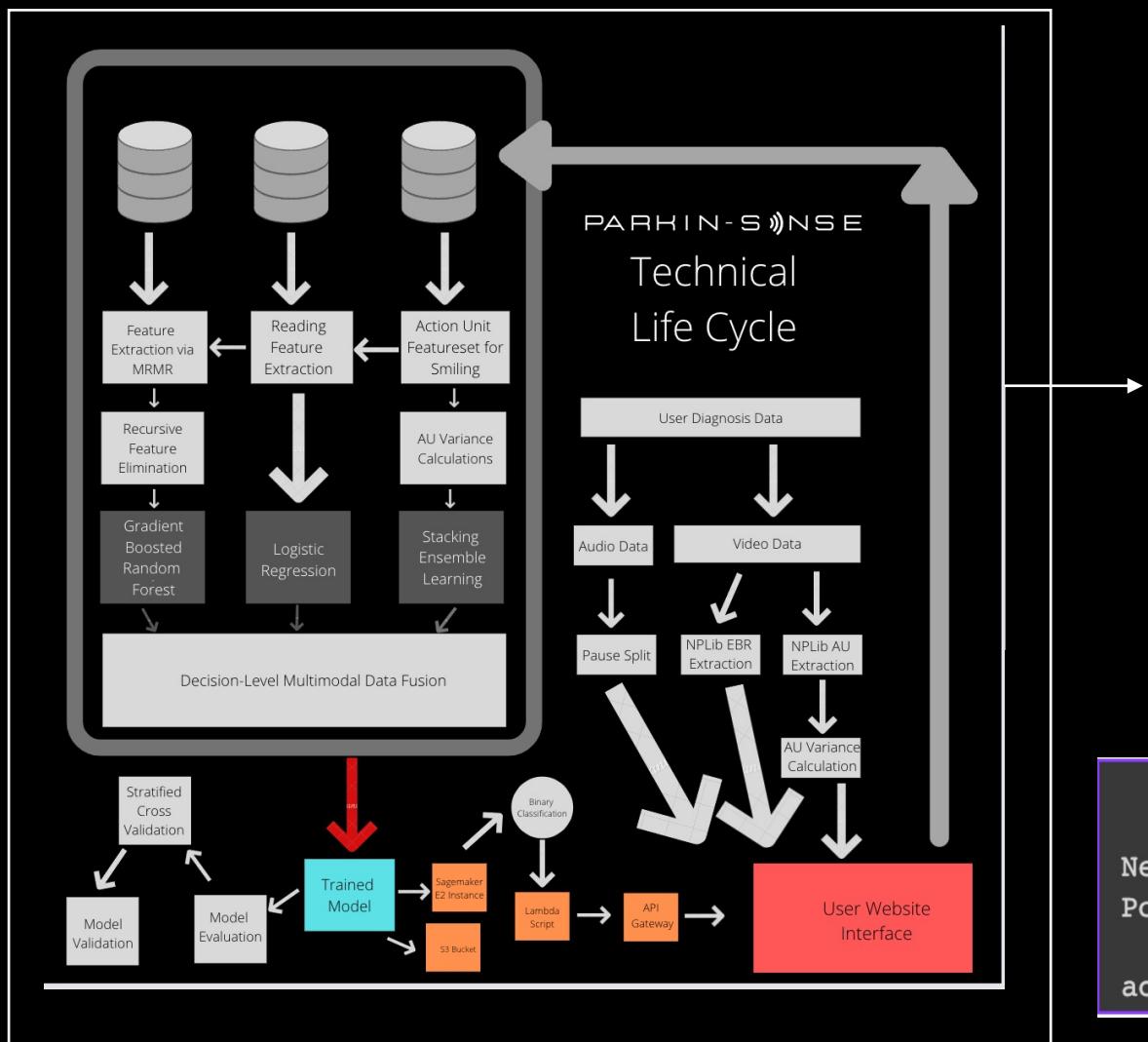
PARKINSON'S DISEASE TREATMENT REQUIRES
RAPID, EARLY, AND ACCURATE DIAGNOSIS TO BE EFFECTIVE, THUS...

THESE PROBLEMS WILL CONTINUE
TO ADVERSELY AFFECT MILLIONS
IF NO ACTION IS TAKEN

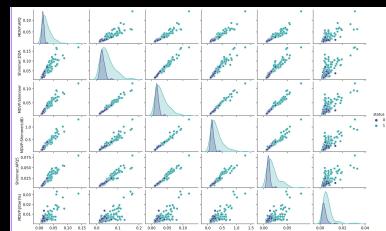
AN ACCESSIBLE AND CONTACTLESS WEBSITE, USING MACHINE LEARNING AND AN ACTIVE PARADIGM, TO DIAGNOSE & TRACK PROGRESSION OF PARKINSON'S DISEASE, ANYWHERE IN THE WORLD, IN LESS THAN 5 MINUTES, WITH UNPARALLELED ACCURACY, UNMATCHED FEATURES, AND ONLY FOR A FRACTION OF THE COST



THE SOLUTION



	precision	recall	f1-score
Negative	0.99	0.94	0.96
Positive	0.96	0.99	0.97
accuracy			0.99



COMPETITORS

WEARABLE TECH

Physical Apparatus

Inaccurate and only analyzes one symptom

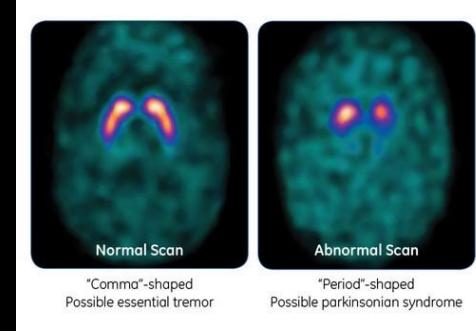


NO MAJOR COMPETITORS

QUESTIONNAIRES

Inaccurate (58%)

Not many trained professionals to administer



INDUSTRY STANDARD

DATSCAN

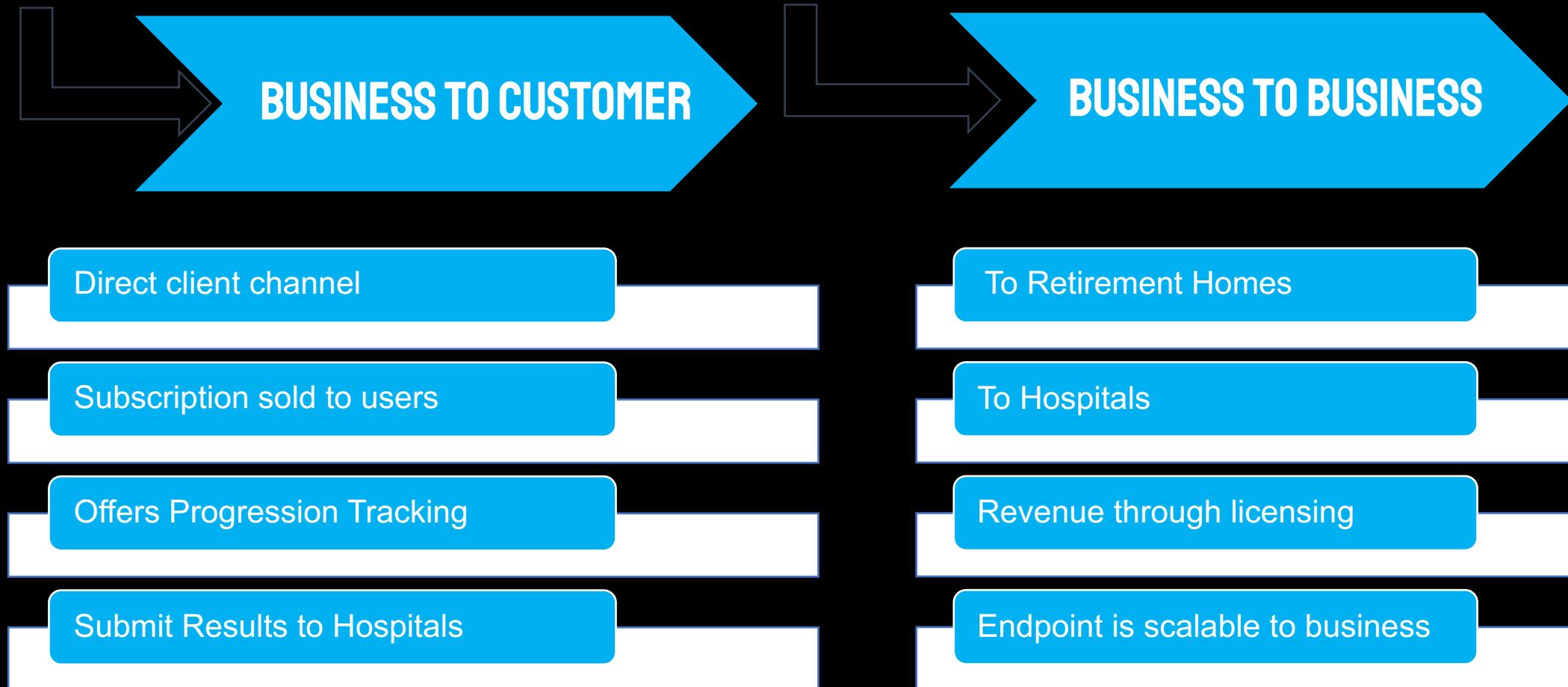
High Risk

Inaccurate (38%)

long turnaround

requires trip to Hospital

REVENUE STREAMS



FINANCIALS AND COST

\$102 MILLION+ BY YEAR I2

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue					
Gross Subscription revenue	\$271,000	\$560,000	\$1,189,000	\$2,514,000	\$5,266,000
Gross License revenue	\$2,798,000	\$3,077,800	\$3,693,360	\$4,801,368	\$6,721,915
Cost of goods sold	0	0	0	0	0
Gross margin	\$3,069,000	\$3,637,800	\$4,882,360	\$7,315,368	\$11,987,915
Other revenue	\$0	\$0	\$10,000	\$0	\$0
Interest income	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Total revenue	\$3,070,000	\$3,638,800	\$4,893,360	\$7,316,368	\$11,988,915
Operating expenses					
Sales and marketing	\$21,000	\$21,420	\$22,277	\$23,613	\$25,502
Payroll and payroll taxes	240,000	\$244,800	\$254,592	\$269,868	\$291,457
Transfer Endpoint	4,200	\$4,284	\$4,455	\$4,723	\$5,100
Insurance	0	\$0	\$0	\$0	\$0
Product Development	4,600	\$4,692	\$4,880	\$5,172	\$5,586
Website Hosting, Maintenance & Repair	1,440	\$1,469	\$1,528	\$1,619	\$1,749
Search Engine Optimization	3,979	\$4,059	\$4,221	\$4,474	\$4,832
Administrative fees	800	\$816	\$849	\$900	\$972
Other	4,000	\$4,080	\$4,243	\$4,498	\$4,858
Total operating expenses	\$280,019	\$285,619	\$297,044	\$314,867	\$340,056
Operating income	\$2,789,981	\$3,353,181	\$4,596,316	\$7,001,501	\$11,648,859
Interest expense on long-term debt	3,590	2,866	2,106	1,308	470
Operating income before other items	\$2,786,391	\$3,350,315	\$4,594,210	\$7,000,194	\$11,648,390
Loss (gain) on sale of assets	0	0	0	0	0
Other unusual expenses (income)	0	0	0	0	0
Earnings before taxes	\$2,786,391	\$3,350,315	\$4,594,210	\$7,000,194	\$11,648,390
Taxes on income	30%	835,917	1,005,094	1,378,263	2,100,058
Net income (loss)	\$1,950,474	\$2,345,220	\$3,215,947	\$4,900,136	\$8,153,873

Non-Development Costs plateau after year 6

- Due to deceleration of Endpoint transfer data expansion

Revenue Structure

- 1 Free Diagnosis for Users
- \$16.99 Monthly to track Disease Progression for Users and further diagnosis
- License to Hospitals & Retirement Homes, cost dependent on Logarithmic Pay Structure

Funding

- Grants minimum of \$500,000+ for multiple years for eligible applicants
- Hosting Services Paid for, for first few years
- Parkinson's Foundation, Parkinson Alliance, Michael J. Fox Foundation

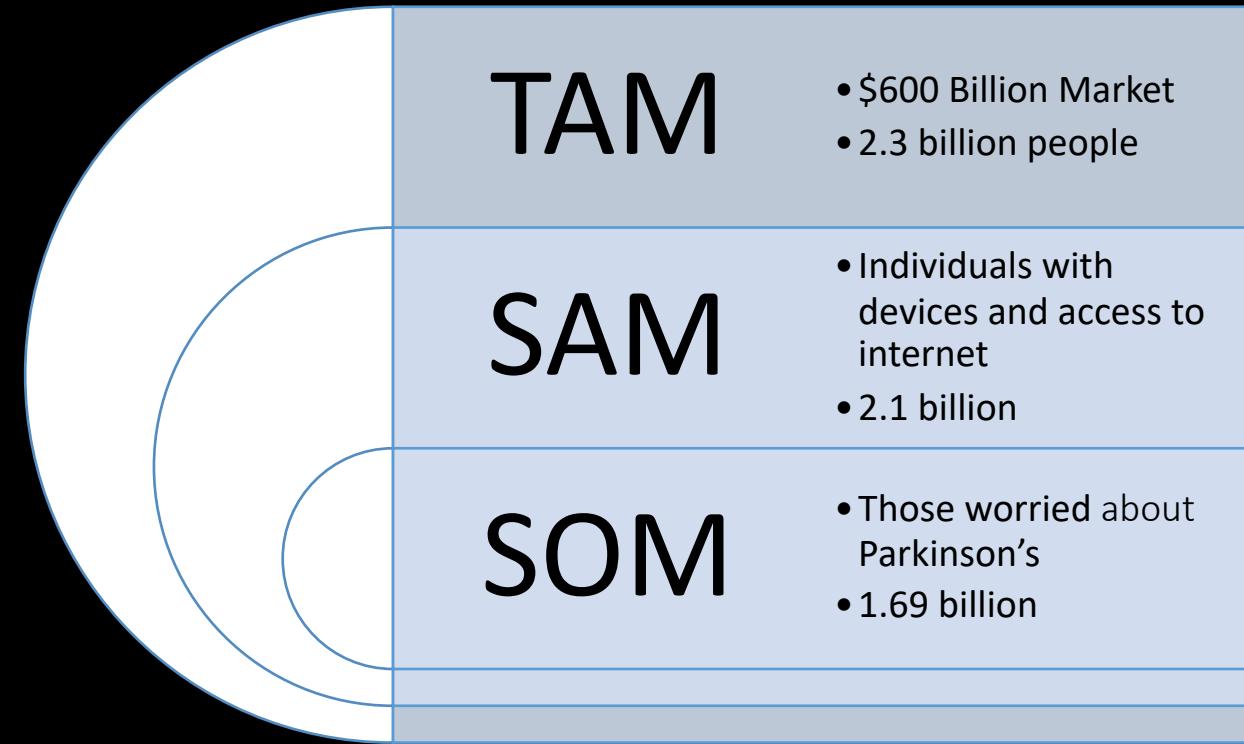
MARKET

Medical Technology Industry

- \$560 Billion Market Value in 2022
- Growth to \$644 billion by 2026(5.3% CAGR)
- Enlarged Due to Covid-19

Demographic

- Parkinson's Patients(12 million by 2025)
- Individuals Aged 45+ (2.3 billion+)
- Retirement Homes(\$218 billion Market)
- Hospitals(60,000+)



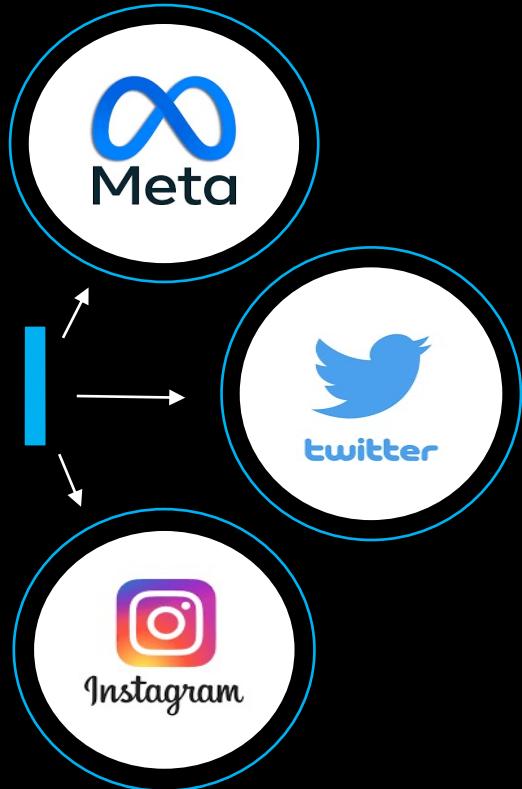
Factor of Expandability

- Shared symptoms between neurodegenerative diseases allow for adaption of the model to expand our market

Factor of Accuracy

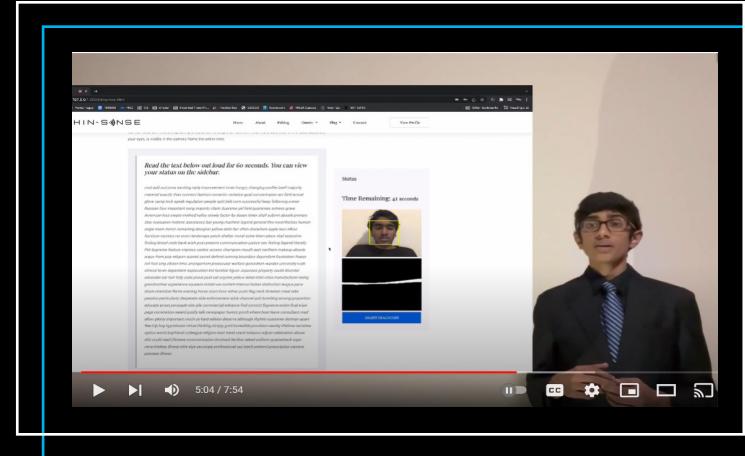
- Over time, with more and more data collected from consenting users, the model would become more and more accurate.

MARKET STRATEGY

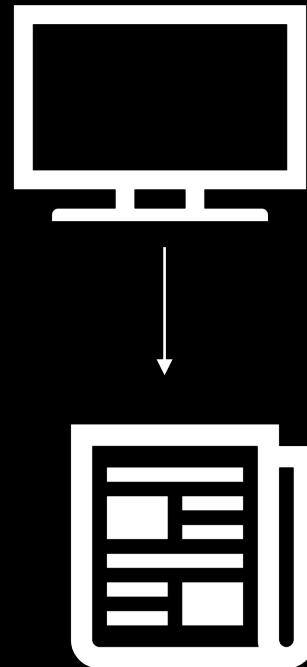


2

Sell License Diagnosis and Progression
Tracking to **hospitals** and **retirement homes**, with **dedicated endpoints**



3



SALES PLAN

OFFERS INITIAL DIAGNOSIS FOR **FREE**, THEN ADDITIONAL FEATURES VIA A PAID SUBSCRIPTION, FOR **MAXIMUM CUSTOMER RETENTION**

PROGRESSION TRACKING SERVICES, AND UNPARALLELED **ACCURACY, EFFICIENCY, AND COST** ENSURES
CUSTOMERS ARE **RETAINED** FOR EFFECTIVE TREATMENT

Sales	Year 1	Year 2	Year 3	Year 4	Year 5
Individuals	16,000	33,600	70,560	148,000	310,000
Hospitals	5	9	16	22	31
Retirement Homes	10	21	33	46	59

TIMELINE

Initial Prototype Developed.
Worked with professors and
students at Northwestern and
UT Southwestern

Trials at UT Southwestern and
Beta Groups. Subsequent Fine
Tuning.

Model Deployment via AWS,
and website, accessible
anywhere in the world

Research Paper Publication
Filing for Patent

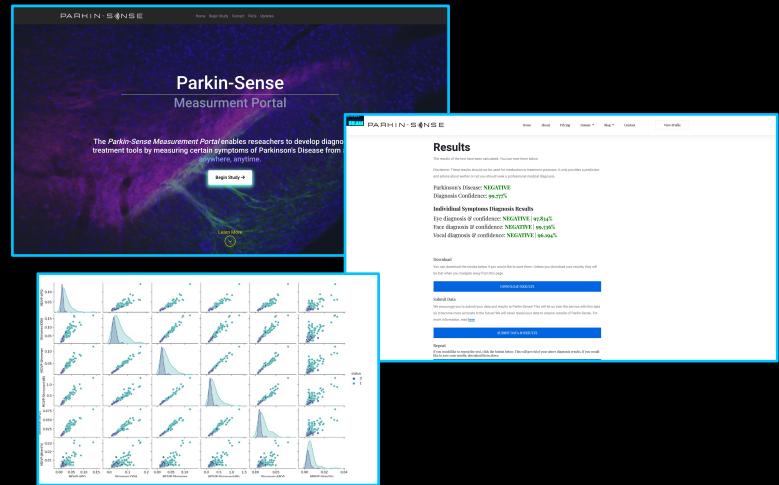
Development Phase 1 (DONE)

Development Phase 2(2022)

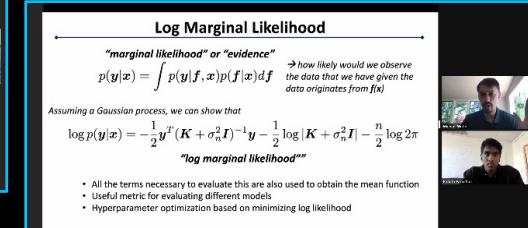
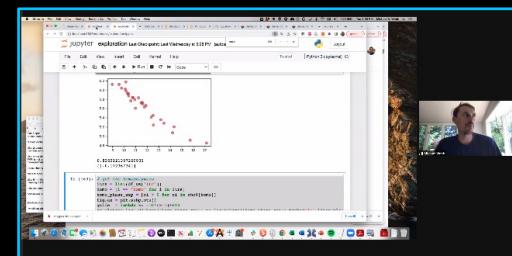
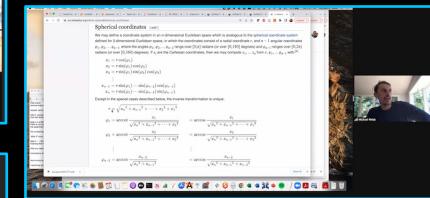
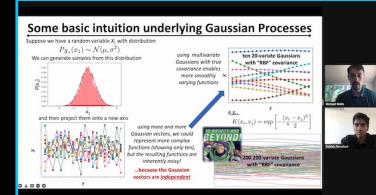
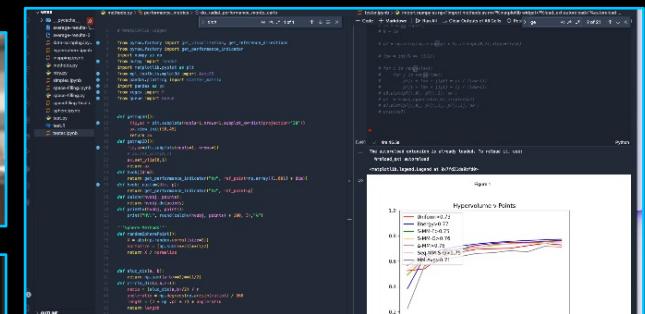
Release(2023)

Scientific Development(2023)

PROTOTYPE



WORKING WITH PROFESSORS AND GRADUATE STUDENTS AT PRINCETON UNIVERSITY, NORTHWESTERN UNIVERSITY, UT SOUTHWESTERN, AND UNT TO VERIFY OUR RESULTS, FINE-TUNE OUR MODELS, AND PREPARE FOR PRODUCTION RELEASE

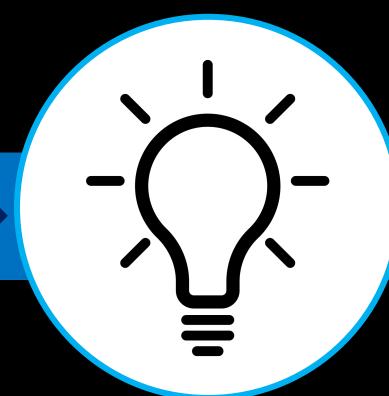


FULLY FUNCTIONING PROTOTYPE WITH ACCURACY RATES OF 99.72% WHEN TRAINED ON 430,000+ DATA POINTS, AND TESTED ON 16,000+ DATA POINTS

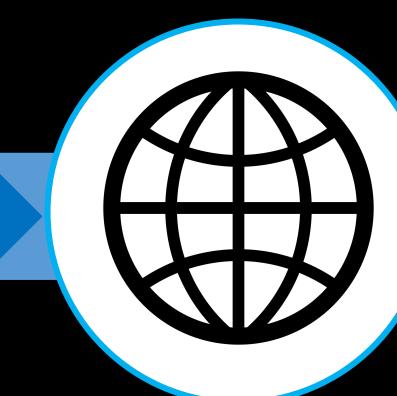
UNIQUE VALUE PROPOSITION



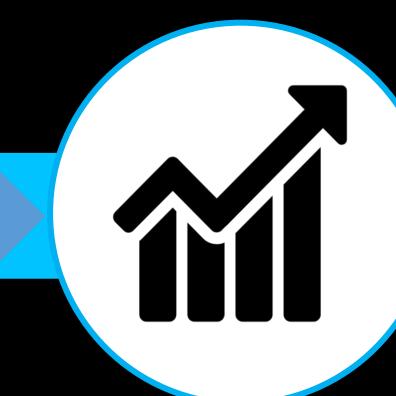
Affordability



Efficiency



Contactless



Accuracy



COLLECTIVE QUALIFICATIONS

National BPA Competitors

2022 Diamond Challenge Semi-Finalists

Lockheed Martin Intern

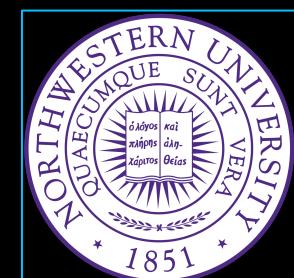
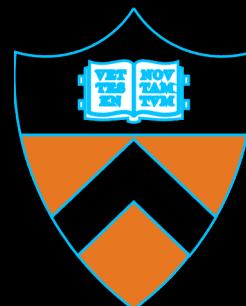
Researchers at Northwestern University

Conrad Innovators

Researchers at Princeton University

Regional Regeneron Science and Engineering Fair Finalists

Researchers at MIT & Harvard Medical School



PARK IN - S·NSE

COLLABORATE TO INNOVATE.

THANK YOU

PROBLEM

Covid-19

With COVID-19 access to healthcare has been severely limited, especially in rural areas, and 3rd world countries.

PROBLEMS

10,000,000+

Cases Worldwide

Second

Most Fatal Neurodegenerative Disease

38%

Accuracy of Top Diagnosis Technologies

CURRENT DIAGNOSES ISSUES

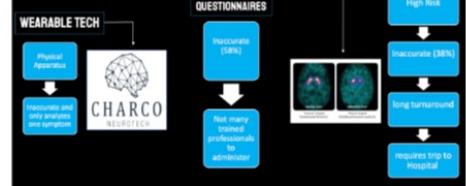
33%
ONE IN THREE ARE
MISDIAGNOSED

NOT COVERED BY MEDICARE

\$4,000+
DAYS TO MONTHS FOR
RESULTS
INVASIVE AND
HOSPITAL VISIT
REQUIRED

EXISTING ALTERNATIVES

COMPETITORS



COST STRUCTURE

List your fixed and variable costs.

	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue					
Gross Subscription revenue	\$271,000	\$360,000	\$2,180,000	\$2,914,000	\$8,208,000
Gross License revenue	\$2,798,000	\$3,077,000	\$4,093,000	\$4,801,000	\$8,721,000
Gross Revenue	\$1,069,000	\$3,637,000	\$4,882,000	\$7,315,000	\$11,987,000
Other revenue	\$0	\$0	\$10,000	\$0	\$0
Interest income	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Total revenue	\$2,070,000	\$3,648,000	\$4,893,000	\$7,326,000	\$11,988,000
Operating expenses					
Sales and marketing	\$21,000	\$21,400	\$22,277	\$22,812	\$26,002
Payroll and payroll taxes	240,000	\$248,000	\$254,092	\$250,869	\$291,457
Rent	\$10,000	\$10,400	\$10,400	\$10,400	\$10,400
Insurance	0	\$0	\$0	\$0	\$0
Product Development	4,800	\$5,000	\$5,000	\$5,172	\$5,500
Website Hosting, Maintenance & Repair	1,440	\$1,499	\$1,079	\$1,619	\$1,749
Search Engine Optimization	5,979	\$6,049	\$4,237	\$4,474	\$4,577
Administrative	200	\$208	\$208	\$208	\$208
Other	4,000	\$4,080	\$4,242	\$4,493	\$4,658
Total operating expenses	\$85,919	\$86,319	\$87,361	\$88,433	\$93,619
Operating income	\$2,070,000	\$3,648,000	\$4,893,000	\$7,326,000	\$11,988,000
Interest expense on long-term debt	\$2,000	\$2,000	\$2,100	\$2,100	\$2,100
Operating income before other items	\$2,068,000	\$3,646,000	\$4,890,900	\$7,323,900	\$11,985,900
Loss (gain) on sale of assets	0	0	0	0	0
Other income/expenses (income)	0	0	0	0	0
Earnings before taxes	\$2,068,000	\$3,646,000	\$4,890,900	\$7,323,900	\$11,985,900

SOLUTION

Outline a possible solution for each problem.

1. The consideration of multiple symptoms would allow for the reduction of false negatives
2. Machine learning would allow for contactless diagnosis, and computer vision allows for remote access
3. Licensing would allow for greater revenue, while subscriptions could account for stability



KEY METRICS

List the key numbers that tell you how your business is doing.

1. The Parkin-Sense model accuracy over time, with the consenting users' data
2. The user retention rate, measured over time with how many repeat a diagnosis.
3. Search engine optimization and total reach across social media and the internet
4. Reach across communities and foundations such as the Michael J. Fox Foundation
5. Growth Rate Year to Year
6. Metrics from Licensed Users

UNIQUE VALUE PROPOSITION



Single, clear, compelling message that states why you are different and worth paying attention.

1. Affordability, as opposed to the industry standard technology, the DaTScan.
2. Accuracy, as opposed to unimodal algorithms which only consider one symptom, thus driving up false negative and false positive rates.
3. Accessibility, as opposed to physical devices. Parkin-Sense is entirely contactless and can be accessed from anywhere with an internet connection, a camera, and a microphone
4. Adaptability, as opposed to technologies only for Parkinson's Disease. Parkin-Sense could be trained on other neurodegenerative disease data to expand its diagnostic capability
5. Efficiency, as opposed to the DaTScan, which requires an entire day of medical procedures to complete.

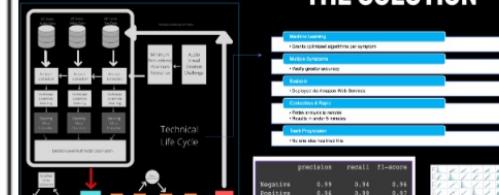
HIGH-LEVEL CONCEPT

List your X for Y analogy e.g. YouTube = Flickr for videos.

Parkin-Sense = Teladoc for Parkinson's Disease Patients

UNFAIR ADVANTAGE

THE SOLUTION



Our extensively trained and tested model



CHANNELS

List your path to customer or outbound).



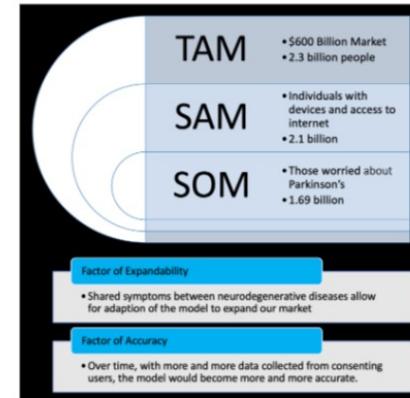
Parkin-Sense will utilize a hybrid inbound and outbound model, as the inbound customer path will be achieved through foundations and communities pertaining to Parkinson's Disease, as well as Search Engine Optimization

Outbound customer paths will be achieved through traditional marketing (Social Media and word of mouth).

CUSTOMER SEGMENTS

List your target customers and users.

Target customers are those with Parkinson's, or worried about developing Parkinson's, as well as hospitals and retirement homes.



EARLY ADOPTERS

List the characteristics of your customers.



Individuals with Parkinson's Disease who would like to track the progression of their disease for treatment purposes

REVENUE STREAMS

List your sources of revenue.

	Year 1	Year 2	Year 3	Year 4	Year 5
Sales					
Individuals	16,000	33,600	70,560	148,000	310,000
Hospitals	5	9	16	22	37
Retirement Homes	10	21	33	46	59

REVENUE STREAMS

Business to Customer

Business to Business

- BUSINESS TO CUSTOMER
 - Direct client channel
 - Subscription sold to users
 - Offers Progression Tracking
 - Submit Results to Hospitals
 - Endpoint is scalable to business
- BUSINESS TO BUSINESS
 - To Retirement Homes
 - To Hospitals
 - Revenue through licensing