

NEUROSTELLAR

Experience the Future



VISION AND MISSION



VISION

Interfacing Brain and Machines for the betterment of Humanity.

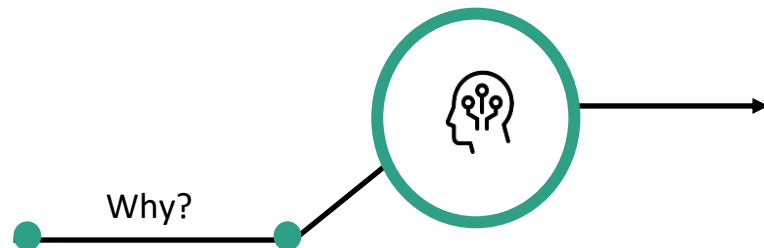


MISSION

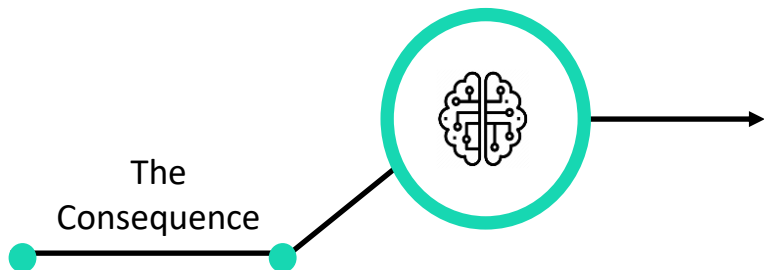
To build magically impactful products by leveraging the 360° potential of Neurotechnology.



UNMET NEED



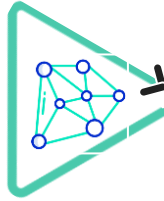
- 50 million people affected by epilepsy worldwide with 10 million people in India. (Src: WHO & NCBI) Ratio between a neurologist and an epilepsy patient in India - **1:3800 (Src NITI Aayog)**.
- **Lack of EEG technicians to read and interpret the records**
- **Absence of proper EEG handling channels**



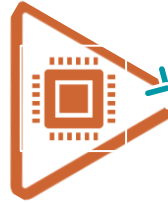
- **with shortage of EEG technician, resulting in mis-interpretation and misdiagnosis**
- **Reduced access to Neurologists**
- **No centralized way to report EEG documents**



NOVELTY



Efficient Artefact and
Noise Cancellation
Algorithm



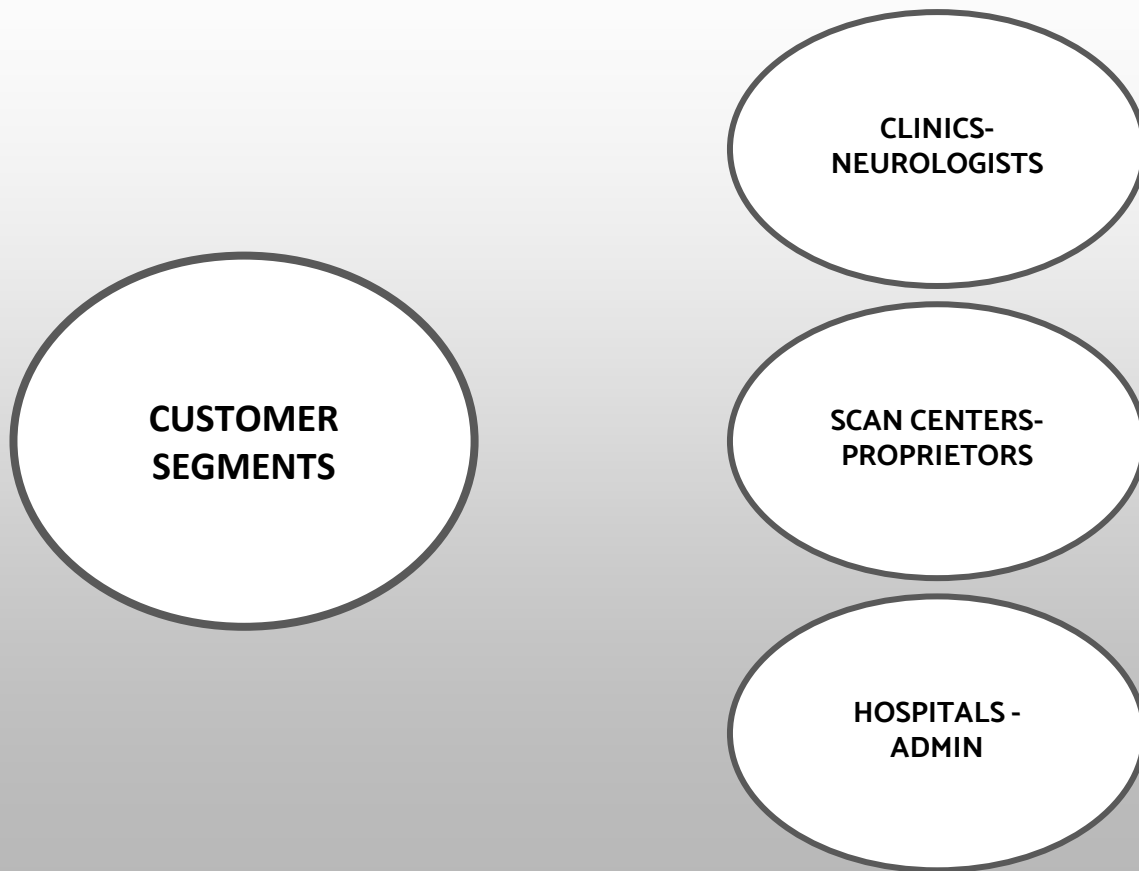
Accurate Seizure
Detection and Noise
Cancellation
Algorithm



Desktop/Mobile
Interface for Remote
Access of data/report
(Telemetry)



CUSTOMER SEGMENTS



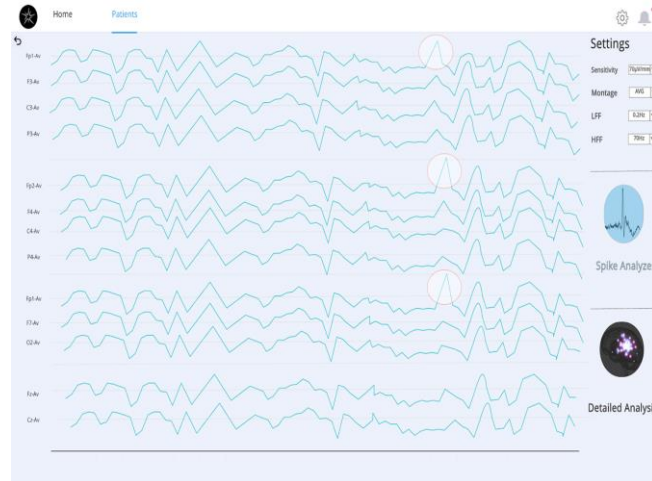
SOFTWARE FEATURES

Seizure
Localization
Module

Artefact
Reduction

Auto-report
Generator

Noise
Cancellation



Desktop/
Mobile
Interface



EEGTelemetry Application

Application Flow :

1. Doctor/Technician logs in to the portal by using his login credentials
2. Technician creates a new EEG report of the patient and upload the EEG File to the server.
3. Doctor can view the EEG file uploaded to the server by using the EEG Viewer and can also make diagnosis from the EEG signals.
4. Various signal processing algorithms can be performed in the EEG viewer screen.
5. The Doctor then uploads his findings and comments in the report.
6. The technician can view the updated Doctors comments and give a copy of the results in pdf format to the patients.



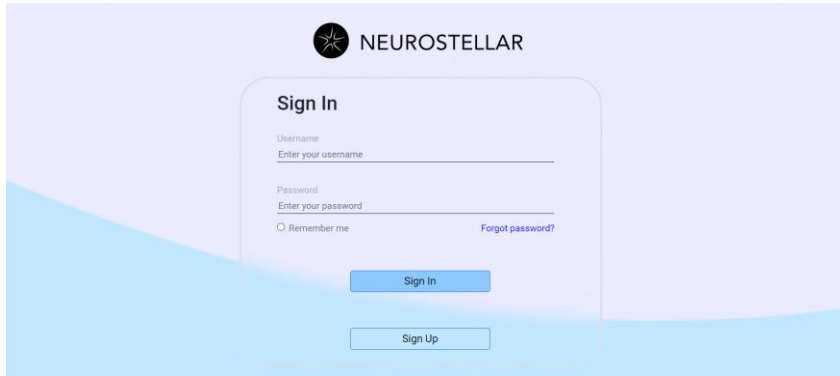
Use Case Of EEGTelemetry Appication :

- Supervising doctors have multiple hospitals/clinics to visit on a regular basis .
- Due to this patients are experiencing delay in getting their EEG scans diagnosed because the physical presence of doctor is needed to diagnose the report as the software is present only in the hospital where patient takes the test and the report cannot be shared anywhere.
- Since this application is entirely hosted as an web application , it reduces the delay occurring in EEG report.
- Complete EEG report diagnosis can be done online by the doctor, even when he is not available in the hospital/clinic.



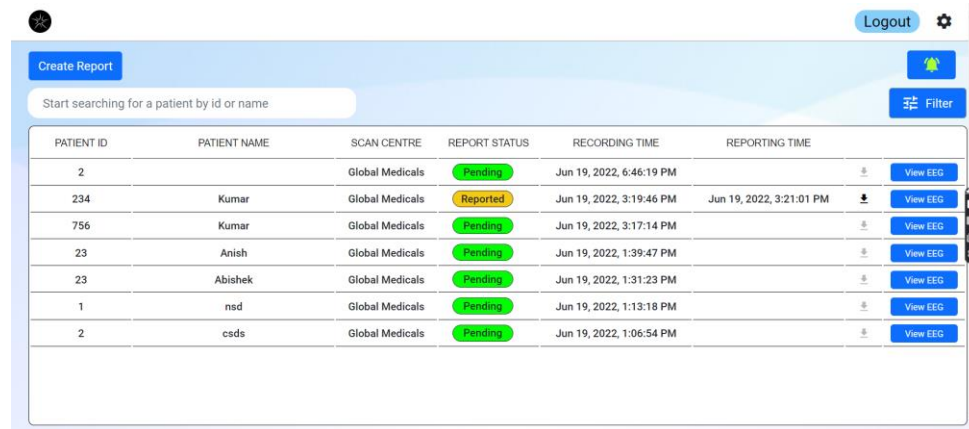
EEGTelemetry Application

Login Page : Technicians and Doctors will have login credentials which will be used to login to the application.



The login page features the NEUROSTELLAR logo at the top. Below it is a 'Sign In' section with a 'Username' field (placeholder: 'Enter your username'), a 'Password' field (placeholder: 'Enter your password'), and a 'Remember me' checkbox. A 'Forgot password?' link is located to the right of the password field. At the bottom of the sign-in section are two buttons: 'Sign In' and 'Sign Up'.

Dashboard Page : The EEG scan report list will be displayed in tabular format in the Dashboard page. Features like Create report, View EEG and Report Pdf Download options are present in dashboard.



The dashboard includes a 'Logout' button and a settings icon in the top right corner. A 'Create Report' button is located on the left. A search bar with the placeholder 'Start searching for a patient by id or name' is positioned below the button. A 'Filter' button is on the right. The main content is a table with the following data:

PATIENT ID	PATIENT NAME	SCAN CENTRE	REPORT STATUS	RECORDING TIME	REPORTING TIME	
2		Global Medicals	Pending	Jun 19, 2022, 6:46:19 PM		View EEG
234	Kumar	Global Medicals	Reported	Jun 19, 2022, 3:19:46 PM	Jun 19, 2022, 3:21:01 PM	View EEG
756	Kumar	Global Medicals	Pending	Jun 19, 2022, 3:17:14 PM		View EEG
23	Anish	Global Medicals	Pending	Jun 19, 2022, 1:39:47 PM		View EEG
23	Abishek	Global Medicals	Pending	Jun 19, 2022, 1:31:23 PM		View EEG
1	nsd	Global Medicals	Pending	Jun 19, 2022, 1:13:18 PM		View EEG
2	csds	Global Medicals	Pending	Jun 19, 2022, 1:06:54 PM		View EEG



EEGTelemetry Application

Create Report : Technicians can create a patient report by entering the patient details and EEG findings along with EEG file. The EEG file gets uploaded to the server.

The screenshot displays the EEGTelemetry Application interface. A modal form titled "REPORT" is centered on the screen, overlaid on a background showing a patient list and a table of EEG reports. The "REPORT" form contains the following fields:

- Patient ID:
- Patient Name:
- DOB:
- Sex:
- Last Seizure:
- Last Meal:
- Current Medications :
- Findings/Technician Notes :
- Upload EEG :

At the bottom of the form are two buttons: "Cancel" and "Sign and Send".

The background interface includes a "Create Report" button, a search bar with the text "Start searching for a patient by id or name", a table of patient details, and a table of EEG reports with "View EEG" buttons. A "Logout" button and a settings icon are in the top right corner. A "ScreenRec" watermark is visible in the bottom right corner.

PATIENT ID	PATIENT NAME
2	
234	Kumar
756	Kumar
23	Anish
23	Abishek
1	nsd
2	csds

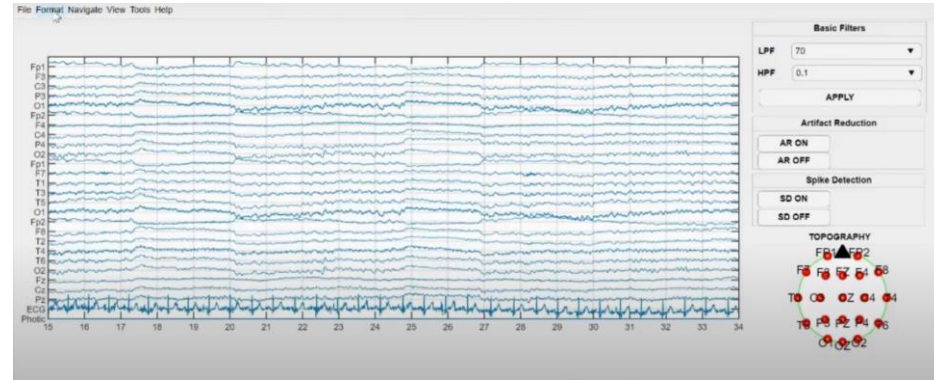
REPORTING TIME	View EEG
19, 2022, 3:21:01 PM	<input type="button" value="View EEG"/>
	<input type="button" value="View EEG"/>
	<input type="button" value="View EEG"/>
	<input type="button" value="View EEG"/>
	<input type="button" value="View EEG"/>
	<input type="button" value="View EEG"/>



EEGTelemetry Application



EEG Viewer : The EEG graph and details can be viewed in the EEG Viewer screen. The doctor will be able to make diagnosis based from the EEG signals plotted below and can identify if any abnormalities are present in the patient.

Updated EEG Viewer(Under Development) : EEG Viewer with updated functionalities developed using various signal processing algorithms. This has features for noise and artifact reduction, Filtering.



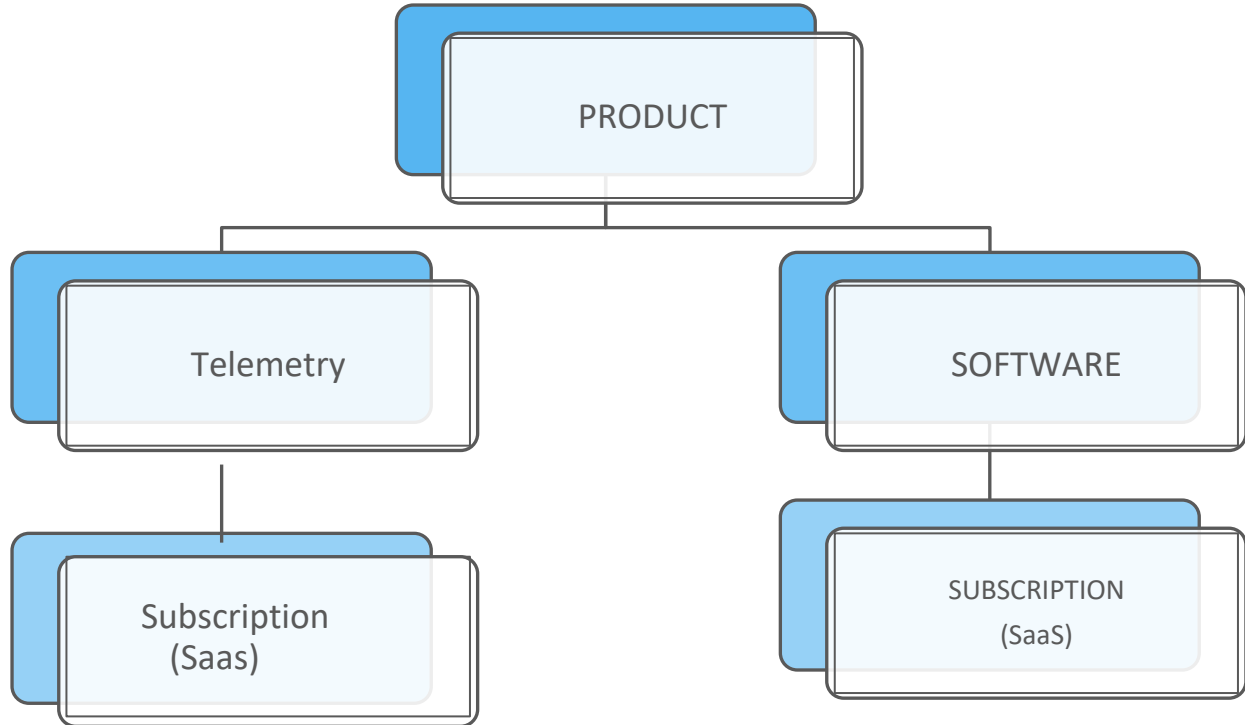
EEGTelemetry Application

EEG Report : EEG report can be downloaded once the doctor completes the diagnosis.It contains all the patient details and the findings and comments of technician/doctor.

Report	
Patient ID : 1	Patient Name : Abishek Kannan
DOB : 1997-12-31T00:00:00	Sex : male
Last Seizure : 2021-01-31T10:34:09	Last Meal : 2021-09-30T08:25:09
<u>Current Medication :</u> Sample Medication-1,Sample Medication-2,Sample Medication-3,Sample Medication-4,Sample Medication-5,Sample Medication-6,Sample Medication-7,	
<u>Findings :</u> Response to opening and closing eyes –symmetry or asymmetry as well as topurposeful movement of the extremities when appropriate.Other non-dominant frequency in the background activity including amplitude,location, symmetry or asymmetry	
Interpretation : Normal	
<u>Clinical Correlation :</u> The main feature of the record is paroxysmal bursts of high amplitude spike and slow wave activity at 3.5 Hz recorded from both hemispheres more prominent on the anterior head region	
 EEG Technologist	 Reporting Neurophysician



PRICING STRATEGY



MEET OUR TEAM



**Karthik
Raghavendran**

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&
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Lead-
NeuroTechX India*



**Dhanushya
Sree**

**CO-FOUNDER &
COO**

*Business Operations,
Mentor-Shevolve,
Chapter Lead-
NeuroTechx India
Marketer- Ex-Nestle*



Dr Fayaz Khan

CTO

*Ph.D in Bio -
medical
Engineering, 8+
years of
Experience
building Medical
Hardware*



**Abhishek
Kannan**

**SOFTWARE
DEVELOPER
Lead**

*3+ years in
Software
Development,
Certified Product
Manager*



Aravind G

**BUSINESS
DEVELOPER**

*3+ years in Sales,
Marketing, Market
Research.*



Aditya Patil

**ML
ENGINEER**

*Student-COEP
Pune 2+ years
experience in ML
while in college.
Chapter Lead-
Student Club NTX*



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