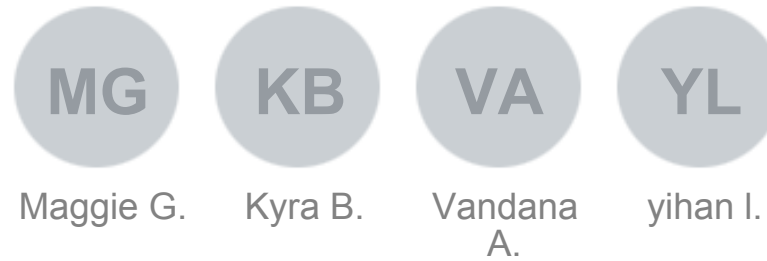




BrainEx

20 Screens



BrainEx | [Explore Data](#) | [Explore Clusters](#)

[Load Dataset](#) | [Explore Data](#) | [Find Similar Sequences](#) | [Need Help?](#)

Explore Raw Data
Explore Clusters

Current Selection

Nothing Selected

Select from upload

Clusters

Cluster: 1
Length: 100
Sequences: 5

Cluster: 2
Length: 209
Sequences: 60

Cluster: 3
Length: 56
Sequences: 60

Cluster: 4
Length: 67
Sequences: 60

Select Clusters by: Most Sequences

Statistics

Number of Data Records in Cluster: 360
 Mean Length: 488
 Minimum Length: 80
 Maximum Length: 600

Data Visualizer

Legend

- 84135, target correct, Channel 1, 711800, 712457
- 75692, target correct, Channel 2, 264102, 272541
- 14502, target incorrect, Channel 3, 820640, 825503
- 91810, target incorrect, Channel 4, 667590, 675114

Data Viewer

<input type="checkbox"/>	Subject ID	Event Name	Channel Name	Start Time	End Time
<input checked="" type="checkbox"/>	84135	target correct	Channel 1	711800	712457
<input checked="" type="checkbox"/>	75692	target correct	Channel 2	264102	272541
<input checked="" type="checkbox"/>	14502	target incorrect	Channel 3	820640	825503
<input checked="" type="checkbox"/>	91810	target incorrect	Channel 4	667590	675114
<input type="checkbox"/>	14336	target incorrect	Channel 5	603408	607396
<input type="checkbox"/>	42622	target incorrect	Channel 6	772165	773515
<input type="checkbox"/>	76075	target correct	Channel 7	70071	27205

Return to Clusters

BrainEx | Explore Data | Explore Clusters

Load Dataset | Explore Data | Find Similar Sequences | [Need Help?](#)

Explore Raw Data | Explore Clusters

Filter ?

Number of Clusters to Display:

15

Display Clusters of Length:

100 250

Clusters

Cluster: 1
Length: 100
Sequences: 5

Cluster: 2
Length: 209
Sequences: 60

Cluster: 3
Length: 56
Sequences: 60

Cluster: 4
Length: 67
Sequences: 60

Select Clusters by: Most Sequences ▼

Statistics

Number of Data Records in Cluster: 360
 Mean Length: 488
 Minimum Length: 80
 Maximum Length: 600

Data Visualizer

Legend

Data Viewer

<input type="checkbox"/>	Cluster ID	Sequence Length	Number of Sequences
<input checked="" type="checkbox"/>	1	100	5
<input checked="" type="checkbox"/>	2	209	60
<input checked="" type="checkbox"/>	3	56	45
<input checked="" type="checkbox"/>	4	67	16
<input type="checkbox"/>	5	98	78
<input type="checkbox"/>	6	509	109
<input type="checkbox"/>	7	290	32
<input type="checkbox"/>	8	876	12
<input type="checkbox"/>	9	487	9
<input type="checkbox"/>	10	106	10

[View Selected Cluster](#)

BrainEx | [Explore Data](#) | [Explore Raw Data](#)

Load Dataset
Explore Data
Find Similar Sequences
[Need Help?](#)

Explore Raw Data
Explore Clusters

Current Sequence from Raw Data ?

Nothing Selected

Select from upload

Filter ?

Subject ID
 ▼

Channel
 ▼

Event Type
 ▼

Statistics

Number of Data Records: 2000
 Mean Length: 488
 Minimum Length: 80
 Maximum Length: 60

Data Visualizer

Select one or more whole time series below in Data Viewer to display them in the Data Visualizer

Legend

Data Viewer

	Subject ID	Event Name	Channel Name	Start Time	End Time
<input type="checkbox"/>	84135	target correct	Channel 1	711800	712457
<input type="checkbox"/>	75692	target correct	Channel 2	264102	272541
<input type="checkbox"/>	14502	target incorrect	Channel 3	820640	825503
<input type="checkbox"/>	91810	target incorrect	Channel 4	667590	675114
<input type="checkbox"/>	14336	target incorrect	Channel 5	603408	607396
<input type="checkbox"/>	42622	target incorrect	Channel 6	772165	773515
<input type="checkbox"/>	76075	target correct	Channel 7	29971	37295

InVision / Prototyping, Collaboration & Workflow for Designers.

Exported on 12/11/2019 at 11:33pm 4 of 21

BrainEx | Explore Data | Explore Raw Data
Preprocessing in Progress

Load Dataset Explore Data Find Similar Sequences Need Help?

Explore Raw Data Explore Clusters

Current Sequence from Raw Data ?

Nothing Selected

Select from upload

Filter ?

Subject ID
 ▼

Channel
 ▼

Event Type
 ▼

Apply Filters
Clear Filters

Statistics

Number of Data Records: 2000
Mean Length: 488
Minimum Length: 80
Maximum Length: 60

Data Visualizer

Select one or more whole time series below in Data Viewer to display them in the Data Visualizer

Legend

Statistics

Number of Data Records: 2000
Mean Length: 488
Minimum Length: 80
Maximum Length: 60

Data Viewer

	Subject ID	Event Name	Channel Name	Start Time	End Time
<input type="checkbox"/>	84135	target correct	Channel 1	711800	712457
<input type="checkbox"/>	75692	target correct	Channel 2	264102	272541
<input type="checkbox"/>	14502	target incorrect	Channel 3	820640	825503
<input type="checkbox"/>	91810	target incorrect	Channel 4	667590	675114
<input type="checkbox"/>	14336	target incorrect	Channel 5	603408	607396
<input type="checkbox"/>	42622	target incorrect	Channel 6	772165	773515
<input type="checkbox"/>	76075	target correct	Channel 7	29971	37295

Query with Selected Sequence

◀ Back

BrainEx | Explore Data | Explore Raw Data

Load Dataset | Explore Data | Find Similar Sequences | [Need Help?](#)

Explore Raw Data | Explore Clusters

Current Sequence from Raw Data ?

Nothing Selected

📄
Select from upload

Filter ?

Subject ID

84135 ▼

Channel(s)

Channel 1, Channel 3, Channel ▼

Event Type

incorrect ▼

Apply Filters

Clear Filters

Statistics

Number of Data Records: 20
Mean Length: 120
Minimum Length: 45
Maximum Length: 150

Data Visualizer

Select one or more whole time series below in Data Viewer to display them in the Data Visualizer

Data Viewer

	Subject ID	Event Name	Channel Name	Start Time	End Time
<input type="checkbox"/>	84135	target incorrect	Channel 1	264102	272541
<input type="checkbox"/>	84135	target incorrect	Channel 1	820640	825503
<input type="checkbox"/>	84135	target incorrect	Channel 1	667590	675114
<input type="checkbox"/>	84135	target incorrect	Channel 3	603408	607396
<input type="checkbox"/>	84135	target incorrect	Channel 3	772165	773515
<input type="checkbox"/>	84135	target incorrect	Channel 4	29971	37295
<input type="checkbox"/>	84135	target incorrect	Channel 4	271711	275177

◀ Back
Query with Selected Sequence

Legend

InVision / Prototyping, Collaboration & Workflow for Designers.

Exported on 12/11/2019 at 11:33pm 6 of 21

BrainEx | Explore Data | Explore Raw Data
Preprocessing in Progress

Load Dataset Explore Data Find Similar Sequences Need Help?

Explore Raw Data Explore Clusters

Current Sequence from Raw Data ?

Nothing Selected

📄
Select from upload

Filter ?

Subject ID

84135
▼

Channel(s)

Channel 1, Channel 3, Channel
▼

Event Type

incorrect
▼

Apply Filters

Clear Filters

Statistics

Number of Data Records: 20

Mean Length: 120

Minimum Length: 45

Maximum Length: 150

Data Visualizer

Select one or more whole time series below in Data Viewer to display them in the Data Visualizer

Data Viewer

	Subject ID	Event Name	Channel Name	Start Time	End Time
<input type="checkbox"/>	84135	target incorrect	Channel 1	264102	272541
<input type="checkbox"/>	84135	target incorrect	Channel 1	820640	825503
<input type="checkbox"/>	84135	target incorrect	Channel 1	667590	675114
<input type="checkbox"/>	84135	target incorrect	Channel 3	603408	607396
<input type="checkbox"/>	84135	target incorrect	Channel 3	772165	773515
<input type="checkbox"/>	84135	target incorrect	Channel 4	29971	37295
<input type="checkbox"/>	84135	target incorrect	Channel 4	271711	275177

◀ Back

Query with Selected Sequence

Legend

BrainEx | [Explore Data](#) | [Explore Raw Data](#)

[Load Dataset](#) | [Explore Data](#) | [Find Similar Sequences](#) | [Need Help?](#)

[Explore Raw Data](#) | [Explore Clusters](#)

Current Sequence from Raw Data ?

Nothing Selected

Select from upload

Filter ?

Subject ID

84135 ▼

Channel

Channel 1, Channel 3, Channel ▼

Event Type

incorrect ▼

Apply Filters

Clear Filters

Statistics

Number of Data Records: 20

Mean Length: 120

Minimum Length: 45

Maximum Length: 150

Data Visualizer

Legend

- 84135, target incorrect, Channel 1, 264102, 272541
- 84135, target incorrect, Channel 1, 820640, 825503
- 84135, target incorrect, Channel 1, 772165, 773515
- 84135, target incorrect, Channel 3, 603408, 607396

Data Viewer

	Subject ID	Event Name	Channel Name	Start Time	End Time
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 1	264102	272541
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 1	820640	825503
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 1	667590	675114
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 3	603408	607396
<input type="checkbox"/>	84135	target incorrect	Channel 3	772165	773515
<input type="checkbox"/>	84135	target incorrect	Channel 4	29971	37295
<input type="checkbox"/>	84135	target incorrect	Channel 4	271711	275177

◀ Back

Query with Selected Sequence

InVision / Prototyping, Collaboration & Workflow for Designers.

Exported on 12/11/2019 at 11:33pm 8 of 21

BrainEx | Explore Data | Explore Raw Data

Load Dataset | Explore Data | Find Similar Sequences | [Need Help?](#) | [Preprocessing in Progress](#)

Explore Raw Data | Explore Clusters

Current Sequence from Raw Data ?

Nothing Selected

Select from upload

Filter ?

Subject ID
84135 ▼

Channel
Channel 1, Channel 3, Channel ▼

Event Type
incorrect ▼

Apply Filters

Clear Filters

Statistics

Number of Data Records: 20
Mean Length: 120
Minimum Length: 45
Maximum Length: 150

Data Visualizer

Data Viewer

<input type="checkbox"/>	Subject ID	Event Name	Channel Name	Start Time	End Time
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 1	264102	272541
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 1	820640	825503
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 1	667590	675114
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 3	603408	607396
<input type="checkbox"/>	84135	target incorrect	Channel 3	772165	773515
<input type="checkbox"/>	84135	target incorrect	Channel 4	29971	37295
<input type="checkbox"/>	84135	target incorrect	Channel 4	271711	275177
<input type="checkbox"/>	84135	target incorrect	Channel 4	132572	142004

Legend

- 84135, target incorrect, Channel 1, 264102, 272541
- 84135, target incorrect, Channel 1, 820640, 825503
- 84135, target incorrect, Channel 1, 820640, 825503
- 84135, target incorrect, Channel 3, 603408, 607396

Back

Query with Selected Sequence

BrainEx | Explore Data | Explore Raw Data

Load Dataset | Explore Data | Find Similar Sequences | [Need Help?](#)

Explore Raw Data | Explore Clusters

Current Sequence from Raw data

Filter

Subject ID: 84135

Channel: Channel 1, Channel 3, Channel 4

Event Type: incorrect

Apply Filters

Clear Filters

Statistics

Number of Data Records: 2000
 Mean Length: 488
 Minimum Length: 80
 Maximum Length: 600

Data Visualizer

Legend

- 84135, target incorrect, Channel 1, 264102, 272541
- 84135, target incorrect, Channel 1, 820640, 825503
- 84135, target incorrect, Channel
- 84135, target incorrect, Channel 3, 603408, 607396

Save Subsequence selection

> This PC > Documents > subsequence_folder

Organize | New folder

Name	Date modified	Type	Size
No items match your search.			

File name: sample_subsequence

Save as type: CSV (Comma delimited)

Authors: Maggie G. | Tags: Add a tag

Save | Cancel

Start Time	End Time
1800	712457
4102	272541
0640	825503
7590	675114
14336	603408
42622	772165
76075	29971
13611	271711

Query with Selected Sequence

BrainEx | [Explore Data](#) | [Explore Raw Data](#)

[Load Dataset](#) | [Explore Data](#) | [Find Similar Sequences](#) | [Need Help?](#)

[Explore Raw Data](#) | [Explore Clusters](#)

Current Sequence from Raw Data ?

Select from upload

Filter ?

Subject ID

84135 ▼

Channel

Channel 1, Channel 3, Channel 4 ▼

Event Type

incorrect ▼

Apply Filters

Clear Filters

Statistics

Number of Data Records: 2000

Mean Length: 488

Minimum Length: 80

Maximum Length: 600

Data Visualizer

Data Viewer

	Subject ID	Event Name	Channel Name	Start Time	End Time
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 1	264102	272541
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 1	820640	825503
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 1	667590	675114
<input checked="" type="checkbox"/>	84135	target incorrect	Channel 3	603408	607396
<input type="checkbox"/>	84135	target incorrect	Channel 3	772165	773515
<input type="checkbox"/>	84135	target incorrect	Channel 4	29971	37295
<input type="checkbox"/>	84135	target incorrect	Channel 4	271711	275177
<input type="checkbox"/>	84135	target incorrect	Channel 4	132572	142004

◀ Back

Query with Selected Sequence


InVision / Prototyping, Collaboration & Workflow for Designers.

Exported on 12/11/2019 at 11:33pm 11 of 21

BrainEx | Find Similar Sequences

Load Dataset Explore Data Find Similar Sequences

Query Parameters
Current Sequence from Upload ?



Select from upload

Number of best sequence matches: 10

Length of interest of sequence matches: 0 — max

Exclude subsequence matches from current sequence:

Overlap of subsequence allowed: 40 %

Clear Query Start

Statistics

Statistics will display when a query has been made

Data Visualizer

Sequence matches will display when a query has been made

Legend

Data Viewer

Sequence match data will display when a query has been made

Back Save Results

BrainEx | Find Similar Sequences

Load Dataset Explore Data Find Similar Sequences

Query Parameters

Current Sequence ?

Select from upload

Number of best sequence matches: 10

Length of interest of sequence matches: 0 — max

Exclude subsequence matches from current sequence:

Overlap of subsequence allowed: 40 %

Clear Query Start

Statistics

Statistics will display when a query has been made

Data Visualizer

Sequence matches will display when a query has been made

Legend

Data Viewer

Sequence match data will display when a query has been made

Back Save Results

BrainEx | Find Similar Sequences

Load Dataset | Explore Data | Find Similar Sequences

Query Parameters

Current Sequence from Upload

Data Visualizer

Legend

Save Subsequence selection

This PC > Documents > subsequence_folder

Search subsequence_folder

Select from

Organize | New folder

Name	Status	Date modified	Type	Size
<input checked="" type="checkbox"/> sample_subsequence	🔄	12/8/2019 5:02 PM	Text Document	0 KB

Number of best sequence matches: 10

Length of interest of sequence matches: 0

Exclude subsequence matches from current sequence:

Overlap of subsequence allowed: 40

Clear Query | Start Query

File name: sample_subsequence | All Files | Open | Cancel

Statistics

Statistics will display when a query has been made

Back | Save Results

BrainEx | Find Similar Sequences

Load Dataset Explore Data Find Similar Sequences

Query Parameters

Current Sequence from Upload ?

Select from upload

Number of best sequence matches:

Length of interest of sequence matches:

Exclude subsequence matches from current sequence:

Overlap of subsequence allowed: %

Clear Query
Start Query ▶

Statistics

Number of returned best matches: 10

Mean Similarity: 75%

Standard Deviation of Similarity: .8

Mean Overlap: 25%

Mean Length: 399

Data Visualizer

Legend

- Query
- Rank 1
- Rank 2
- Rank 3

Data Viewer

Rank	Subject ID	Event Name	Channel Name	Start Time	End Time	Similarity	Overlap
	Query	SubjectID4 target correct	Channel 1	711800	712457	-----	-----
<input type="checkbox"/>	1	75692 target correct	Channel 2	264102	272541	98%	28%
<input type="checkbox"/>	2	14502 target incorrect	Channel 3	820640	825503	95%	28%
<input type="checkbox"/>	3	91810 target incorrect	Channel 4	667590	675114	85%	39%
<input type="checkbox"/>	4	14336 target incorrect	Channel 5	603408	607396	75%	13%
<input type="checkbox"/>	5	42622 target incorrect	Channel 6	772165	773515	74%	37%
<input type="checkbox"/>	6	76075 target correct	Channel 7	29971	37295	71%	34%
<input type="checkbox"/>	7	13644 target correct	Channel 8	271711	275177	70%	45%
<input type="checkbox"/>	8	91697 target correct	Channel 9	132572	142004	65%	35%
<input type="checkbox"/>	9	40210 target incorrect	Channel 10	439123	447593	64%	20%
<input type="checkbox"/>	10	26592 target correct	Channel 11	677039	680867	60%	31%

◀ Back
Save Results

 **BrainEx**
Version 1.0.0

Preprocessing Progress

[Need Help?](#)

Preprocessing in Progress...



Working dataset: Dataset6.csv

Cancel Preprocessing

Explore Raw Data while Preprocessing



BrainEx
Version 1.0.0

Preprocessing Progress

[Need Help?](#)

Preprocessing stage is complete!
Sequences Preprocessed: 20065/20065

Restart with Another Dataset

Explore Loaded Data


Find Similar Sequences


 **BrainEx**
Version 1.0.0


Preprocessing


[Need Help?](#)

Working dataset: Dataset6.csv

Number of Dataset Headers: 


Distance Type: 

Similarity % 

Time-series Length of Interest: 

Back

Start Preprocessing



BrainEx

Version 1.0.0

Select a Dataset

[Need Help?](#)

Raw Datasets

Dataset6

Dataset9

Dataset1

Dataset2

Load another dataset


Choose File
No File Chosen...
Add

Previewed: Dataset6.csv

Subject ID	Event Name	Channel Name	Start Time	End Time
84135	target correct	Channel 1	711800	712457
75692	target correct	Channel 2	264102	272543
14502	target incorrect	Channel 3	820640	825503
91810	target incorrect	Channel 4	667590	675114
14336	target incorrect	Channel 5	603408	607390
42622	target incorrect	Channel 6	772165	773515
76075	target correct	Channel 7	29971	37298
13644	target correct	Channel 8	271711	275177
91697	target correct	Channel 9	132572	142004
40210	target incorrect	Channel 10	439123	447593
26592	target correct	Channel 11	677039	680867
69749	target correct	Channel 12	907193	908820
97111	target correct	Channel 13	255974	257633
67018	target correct	Channel 14	779233	787420
46316	target correct	Channel 15	739916	740503
44815	target incorrect	Channel 16	379322	379569

Back

Continue




BrainEx

Version 1.0.0

Select a Dataset

[Need Help?](#)

Raw Datasets

Search..... 

- Dataset6
- Dataset9
- Dataset1
- Dataset2

Load another dataset

Select a raw dataset

The image shows a software interface for BrainEx. At the top, there is a blue header with the BrainEx logo (a brain icon) and the text "BrainEx Version 1.0.0". To the right of the logo, the word "Homepage" is displayed, and further right is a link labeled "Need Help?". Below the header, the interface is split into two main sections. On the left, a sidebar titled "Preprocessed datasets" contains a search bar with the text "Search....." and a magnifying glass icon. Below the search bar is a scrollable list of dataset names: SART1, SART2, AXCPT1, and AXCPT2. At the bottom of this list is a button labeled "Load another preprocessed dataset". Below this button are three elements: a "Choose File" button, the text "No File Chosen...", and an "Add" button. On the right side of the interface, there is a large white area with the following text: "The tool that finds the top k similar matches in fNIRS time series data." Below this text, it says "Start with a preprocessed dataset" followed by "or" and a large blue button with the text "Preprocess a raw dataset".