INFORMATION

Name: Mattheus Victor Guimaraes Bezerra

HONORS THESIS INFORMATION

Criterion for continuation as identified in 691H contract: Working implementation

of the reconstruction-based decoder for prediction. Visiting every step of the process to confirm there

is no overtraining and minimal biases in all areas. Student must be able to follow through and explain

why all decisions have been made in the process.

Was criterion met? ☑ YES ☐ NO:
If not, adviser must explain why the student should be allowed to continue.

Important Datesfor Fall 2020

Application for Research Grant to Honors Director	Sept. 30, 2020
Abstract due for OUR Celebration	N/A
Defense deadline	Oct. 19, 2020
OUR Celebration of Undergraduate Research [predicted]	N/A
CS Undergraduate Research Symposium	N/A

HONORS THESIS INFORMATION

Project description: Create and use interpolated data from infant MRI scans to determine if a child's

risk for attention deficits and cognitive control issues can be predicted. This continues off of a

previous year of research in which infant cortical thickness and surface area were interpolated using

autoencoders. This project continues by finalizing reconstruction decoders for prediction, and then

using the reconstructions to classify risk groups. Other measures may be added outside of cortical

thickness and surface area for interpolation and prediction.

Deliverables: (The deliverables should include the approximate scope and depth of the thesis. This is

the time that the student and adviser should determine the approximate size of the thesis.):A

minimum of 20 pages, the thesis should include all standard components such as abstract,

introduction, literature review, discussion, conclusion, bibliography.

Retention: This contract is to be retained for a minimum of four years. Last update: 13 August 2020

Meeting requirements: Weekly meetings to discuss code, machine learning, papers, thesis writing, advising, etc.

These will occur based on the consistent availability of the student and staff. Can occur remotely or in-person.

Milestones

Required Milestones:

Completed Thesis to Adviser ___October 1_____

Completed Thesis to Second Reader ___October 8_____

Defense Date ___October 15_____
(If this date changes, it must still be on or before the October 19 deadline and must be agreed to by the second reader and Honors Director.)

Additional Milestones: N/A

Other assignments (e.g., presentations): N/A

Assessment plan: The assessment of the student will be based upon their ability to learn and create the assigned

projects (80%). It will be based on effort,capabilities developed within the project, and progress made within the

assignment. Quality of the presentation (10%), as well clarity and rigor of the report will provide further assessment

input (10%).

Second Reader

I agree to be the second reader for this honors thesis and agree to review the honors thesis on the schedule identified

and will be available to attend the defense by the given deadline.

Second reader __Marc Niethammer_____ Date _____8/13/2020_____