

July 2, 2024	Project Initiation : Defined research focus on acculturation stress	Outlined Goals : explore how acculturation affects brain and identity
July 5, 2024	Literature Review : Acculturation Models	Focused on John Berry's acculturation strategies. Identified 4 types
July 8, 2024	Literature Review : Neuroscience of Stress & Identity	Explored effects of acculturation stress and effects on mPFC, ACC, and DMN activity
July 12, 2024	Formulated Research Questions	1) How does acculturation stress manifest neurologically 2) Can AI predict individual risk of acculturation stress?
July 18, 2024	Consulted Mentor on Survey Design	Received feedback: expand emotional well-being and coping mechanisms
July 22, 2024	Finalized Survey & distributed to participants	Sent to diverse sample(1st and 2nd generation immigrants)
July 28, 2024	MRI Data Collection Plan	Developed Plan to analyze publicly available fMRI datasets
August 2, 2024	Began collecting survey responses	Monitored initial submissions for quality
August 10, 2024	Cleaned Initial Survey Dataset	Removed incomplete or inconsistent responses.
August 15, 2024	Literature Review(AI in Neuroscience)	Explored logistic regression and neural network approaches.
August 20, 2024	Pre-Processing MRI Data	Applied data normalization and motion correction
August 25, 2024	Initial Logistic Regression Model Construction	Trained model to predict stress risk using survey + MRI features.

August 30, 2024	Feature Engineering(Neural Markers)	Focused on functional connectivity in the DMN and conflict monitoring.
September 3, 2024	Model Tuning and Hyperparameter Testing	Optimized logistic regression for better predictive accuracy
September 10, 2024	Expanded Model: Added Coping Mechanisms	Incorporated coping style as a variable for stress prediction
September 15,2024	Survey Data Analysis:Acculturation Strategy vs. Stress	Found marginalization linked to the highest reported distress levels.
September 20, 2024	Began Developing Visualization Outputs	Designed graphs for stress vs. acculturation strategy
September 25, 2024	Cross Validation of AI Model	10-fold cross-validation;initial accuracy:82%
October 1, 2024	Literate Review (Cultural Neuroscience)	Studied how cultural differences shape brain plasticity)
October 8, 2024	Revised Survey for Deeper Coping Analysis	Expanded Coping mechanism categories for psychological analysis
October 15, 2024	Second Survey Distribution	Revised survey to participants for addition data
October 20, 2024	Neural Marker Clustering Analysis	Identified 3 subgroups based on brain activity patterns
October 25, 2024	Began Writing Presentation Outline	Drafted main sections, focusing on AI model and acculturation effects
November 1, 2024	Incorporated Epigenetics into Study	Explored how stress may alter gene expression in acculturated brains.
November 5, 2024	Expanded AI Model - Added Bayesian Inference	Improved uncertainty quantification in individual stress prediction
November 10, 2024	Preliminary results Review	Observed stronger mPFC activation in integrated identity participants

November 18, 2024	Peer Review of Findings	Received feedback to enhance interpretation of psychological impacts.
November 25, 2024	Developed Dynamic Stress Mapping Framework	Proposed visual model for real-time stress tracking in MRI.
December 1 , 2024	Created Finalized Model Visuals	Designs showing data pipeline from MRI to Ai predictions
December 5, 2024	Revised Research Questions	Added focus on intervention development for high-risk individuals.
December 10, 2024	Literature Review(Intervention Techniques)	Focused on neurofeedback and culturally responsive therapies.
December 18, 2024	Data Fusion: MRI + Survey Analysis	Combined datasets for holistic stress prediction modeling
December 25, 2024	Expanded Model to Include Longitudinal Data	Integrated temporal patterns from repeat responses
January 1, 2025	Finalized Model Accuracy Testing	Achieved 85% accuracy in predicting acculturation stress using AI
January 2, 2025	Reviewed Model Outputs	Verified outputs align with survey and MRI-based neuroimaging data.
January 3, 2025	Identified Patterns in Stress Prediction	Found that marginalization correlates with the highest stress
January 4, 2025	Analyze Longitudinal Data	Observed identity conflict intensifies over time without support.
January 5, 2025	Refined Personalized Therapy Algorithms	Created decision trees based on acculturation type and stress risk
January 6, 2025	Validated Neural Connectivity Findings	Confirmed weaker DMn activity in marginalized participants.

January 7, 2025	Investigating Coping Mechanisms	Found social support reduces reported stress by 30%
January 8, 2025	Expanded Literature Review (Intervention Strategies)	Analyzed culturally adapted CBT for identity conflict mitigation
January 9, 2025	Developed a Real-Time Stress Mapping Prototype	Modeled dynamic neural patterns during acculturation stress events
January 10, 2025	Updated AI Model with Bayesian Calibration	Improved uncertainty estimation in stress-risk predictions
January 11, 2025	Revised Psychological Framework Section	Added Lazarus and Folkman's model of stress and coping mechanisms.
January 12, 2025	Conducted New MRI Data Analysis	Confirmed prefrontal cortex hyperactivity in high-stress cases.
January 13, 2025	Evaluated Cross-Cultural Survey Responses	Bicultural individuals report higher cognitive flexibility
January 14, 2025	Optimized Logistic Regression Parameters	Improved model fit with new feature scaling techniques.
January 15, 2025	Integrated Coping Mechanism Variables into AI Model	Enhanced predictions by including family support and peer reliance.
January 16, 2025	Investigated Health Outcomes of Acculturation Stress	Investigated Health Outcomes of Acculturation Stress.
January 17, 2025	Conducted Feature ENGINEERING on MRI Data	Extracted white matter integrity features for enhanced predictions.
January 18, 2025	Evaluated Psychological Stress Metrics.	Analyzed emotional exhaustion and cognitive load under cultural conflict.
January 19, 2025	Expanded Social and Cultural Impact Analysis	Emphasized the effect of family cohesion on stress mitigation.
January 29, 2025	Expanded the cultural identity section with deeper analysis	

	of dual identity effect on mental health.	
January 30, 2025	Refined logistic regression output by adjusting feature weights for improved stress prediction.	
January 31, 2025	Finalized the survey data visualization, like bar graphs, pie charts and correlation and heatmaps.	
February 1, 2025	Developed a new section on adolescent brain development and its vulnerability to acculturation stress	
February 2, 2025	Enhanced MRI image segmentation for better identification of stress-related brain regions.	
February 3, 2025	Created new statistical summaries on generation differences in stress coping.	
February 4, 2025	Incorporated findings on epigenetic effects of prolonged acculturation stress into the analysis.	
February 5, 2025	Improved logistic regression interpretability by adding interaction effects between identity and stress.	
February 6, 2025	Updated the presentation with more complex neural markers and cultural coping mechanisms.	
February 7, 2025	Analyzed peer-reviewed studies to deepen insights on social support and stress mitigation.	

February 8, 2025	Designed new graphs comparing psychological effects across different acculturation strategies.	
February 9, 2025	Conducted an error analysis on AI predictions to identify and correct misclassified cases.	
February 10, 2025	Explored Bayesian approaches to improve the uncertainty quantification of stress predictions.	
February 11, 2025	Expanded psychological models section to include intersectional identity theory in acculturation.	
February 12, 2025	Verified MRI preprocessing pipeline against open-source neuroimaging datasets.	
February 13,2025	Revised and extended health-related outcomes in the presentation (chronic stress, immune response).	
February 14, 2025	Incorporated real-time stress modeling via simulated cultural conflict scenarios.	

February 15, 2025	Reanalyzed longitudinal survey data to detect patterns of change over five years.	
February 16, 2025	Developed individualized risk stratification outputs for AI-based stress prediction.	
February 17, 2025	Analyzed cultural memory encoding and its impact on cognitive dissonance in acculturated brains	
February 18, 2025	Finalized the cultural and social effects section with detailed peer-reviewed evidence.	
February 19, 2025	Created additional slides showing the psychological and mental health effects of acculturation	
February 20, 2025	Conducted cross-validation to further improve the generalizability of predictive AI model	
February 21, 2025	Updated psychological mechanisms slide to highlight emotional regulation and identity conflict.	

February 22,2025	Built personalized therapeutic intervention pathways based on neural and survey data	
February 23, 2025	Strengthened academic effect analysis, specifically on how acculturation stress impacts learning and performance	
February 24, 2025	Research cultural dissonance effects on decision-making under stress	
February 25, 2025	Designed new slides on how coping mechanisms modulate neural and emotional outcomes.	
February 26, 2025	Tested Logistic regression model performance across different demographic subgroups	
February 27, 2025	Developed Flowcharts and expanded visuals to improve model explanation for the science fair	
February 28, 2025	Incorporated research on neuroplasticity changes under prolonged cultural stress.	

March 1, 2025	Updated and expanded cultural and academic effects slides with deeper insights and new data points	
March 2, 2025	Strengthened AI Model documentation for the presentation	
March 3, 2025	Improved clarity of data visualization to effectively communicate key findings	
March 4, 2025	Integrated new insights on family dynamics and how they mitigate acculturation stress.	
March 5, 2025	Conducted final checks on survey accuracy and revalidated stress predictions.	
March 6, 2025	Expanded epigenetics section to link stress biomarkers with cognitive adaptation.	
March 7, 2025	Finalized interactive elements for the science fair (model visualization, participant scenarios).	

March 8, 2025	Refined the AI methodology slides with clearer explanations of neural feature extraction.	
March 9, 2025	Added case study examples illustrating individual risk profiles for acculturation stress.	
March 10, 2025	Rehearsed science fair script and refined the Q&A section for audience engagement.	
March 11, 2025	Conducted a full run-through of the presentation, finalizing visual coherence and content flow.	
March 12, 2025	Finalized deliverables for the science fair, including AI model outputs and interactive demos.	
March 14, 2025	Conducted additional correlation analysis between stress markers and coping strategies.	
March 15, 2025	Expanded discussion on neurobiological resilience factors that mitigate effects	

March 16, 2025	Started to define online platforms sections and reworking presentation	
March 17, 2025	Integrated qualitative survey responses into script to provide deeper insight.	
March 18, 2025	Finished concise script and tested for time	
March 19, 2025 - March 21, 2025	Finished sections online, attachments, and video, as well logbook	