**ALEXIS PARKER**

aparker0917@gmail.com **•** (909)-560-0034 **•** Los Angeles, CA

LinkedIn: <https://www.linkedin.com/in/alexis-parker-732b9a165> Portfolio: <https://aparker03.github.io/alexis-portfolio>

**EDUCATION**

**UNIVERSITY OF MICHIGAN SCHOOL OF INFORMATION |***Master of Applied Data Science (MADS)*August 2025

* Projects focused on: Experimental Design, Deep Learning (GANs, RNNs), Bayesian Inference, Health Data Analysis, EDA, Public Health Research, and LLM-based Research Methods

**CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO |** *Bachelor of Arts in Psychology*June 2019

* Relevant Coursework: Experimental Psychology, Biological Psychology, Drugs and Behavior, Research Methods

**SKILLS**

**Programming & Tools:** Python (NumPy, Pandas, scikit-learn, TensorFlow, PyTorch), SQL, R, Git, Jupyter, VS Code, Google Cloud Platform (GCP), Matplotlib

**Research Methods:** Literature review, qualitative coding, annotation, study ideation, reproducible pipelines

**PROFESSIONAL EXPERIENCE**

**University of Michigan, School of Information |** *Graduate Student Researcher*  Jan 2025 to Present

* Built reproducible data pipelines with Pandas, Seaborn, and scikit-learn; created KDE plots, time series graphs, and regression charts to support exploratory analysis and decision-making
* Conducted literature review, qualitative coding, annotation, and study ideation for LLM-focused projects, using Python (pandas, numpy), Jupyter, and Git to ensure reproducible workflows

**IHSS Public Authority |** *IHSS Caregiver*  April 2019 to Present

* Provide long-term, personalized care to elderly and disabled clients, supporting medication adherence, mobility, hygiene, and daily independence
* Monitor cognitive and physical health changes and deliver consistent emotional support, improving communication with providers and reducing hospitalizations while enhancing quality of life

**California State University, San Bernardino |** *Behavioral Neuroscience Research Assistant*  April to June 2019

* Conducted lab study on cocaine-conditioned object preference in adolescent rats; applied structured behavioral protocols and three-way ANOVA in SPSS to reveal conditioned responses to environmental cues
* Visualized locomotor activity with bar plots and time series graphs in GraphPad Prism, supporting conclusions that environmental triggers heighten relapse vulnerability during adolescence

**PROJECT EXPERIENCE**

**EEG + NHIS Explorer |** *Graduate Researcher* June 2025 to August 2025

* Processed EEG recordings (OpenNeuro) with NumPy, SciPy, and MNE-Python; extracted alpha, theta, and beta band power and integrated results with 2024 NHIS sleep survey data (32k respondents)
* Built an interactive Streamlit app with Plotly dashboards (EEG scalp maps, PVT violin plots, national sleep histograms) to connect lab-based and population-level measures

**Depression Risk Modeling - NHANES Survey Data |** *Graduate Researcher* May 2025 to June 2025

* Merged and cleaned 7 NHANES modules (~12k records) for depression severity prediction; applied KMeans, PCA, and DBSCAN (scikit-learn) to generate features and clusters
* Trained Logistic Regression, Random Forest, and SVM models with hyperparameter tuning; evaluated with SHAP, confusion matrices, and ROC-AUC, engineering socioeconomic predictors from Census data

**Depression Index Analysis - CDC BRFSS Survey |** *Graduate Researcher* January 2025 to March 2025

* Created a Depression Index using 400,000+ CDC BRFSS responses to model regional variation in self-reported depression symptoms based on PHQ-9 scoring
* Visualized trends in Python, finding Western states scored 15-20% lower than the Midwest and South, supporting research on environmental influences in mental health

**Heart Rate and Performance Trends - Strava Wearable Data|** *Data Science Analyst* November 2024

* Analyzed 38,000+ time-stamped heart rate records from Strava using Python to detect bimodal afternoon distributions via KDE and Gaussian Mixture Models
* Conducted time series exploration across cadence, distance, and heart rate by time of day, revealing performance trends that inform personalized training strategies