ALEXIS PARKER
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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