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**MIKAH NELSON**

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**EDUCATION**

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Expected 2024	University of California, Santa Barbara (UCSB), CA <b>B.S. in Psychological and Brain Sciences</b> Major GPA: 3.7
2023 – 2024	Honors Thesis: “Children’s Perceptions Regarding Biracial Identity.” [ <i>Working title</i> ] Advisors: Zoe Liberman Member: Psi Chi
<b>Relevant Coursework:</b>	Simulating Social Systems (Computational Mate Choice Lab Workshop), Cognitive Psychology, Lab in Memory and Cognition, Media Psychology, Human Relationships, Perception - Vision, Developmental Psychology, Honors Research

**RESEARCH EXPERIENCE**

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March 2022-Present	<b>Undergraduate Honors Thesis Student</b> PI: Dr Zoe Liberman; Graduate Student Mentors: Elizabeth Quinn-Jensen <i>Social Cognitive Development Lab</i> Department of Psychological & Brain Sciences, UCSB, CA
	<ul style="list-style-type: none"> <li>• Responsible for helping recruit, schedule, run, code, design, and analyze studies with infants and children</li> <li>• Collects data through UCSB’s scientific outreach with local science museum and zoo and analyzed quantitative and qualitative data using R</li> <li>• Designs agent based models to visualize hypotheses before analyzing data</li> <li>• Codes videotaped interactions, preferential looking times, and written responses for behaviors in developmental studies</li> <li>• Examines literature regarding racial categorization and flexibility</li> <li>• Honors Thesis title: “Children’s Perceptions Regarding Biracial Identity.” [Working title]</li> </ul>
April 2023-Present	<b>Undergraduate Research Assistant</b> PI: Dr. Rene Weber, University of California, Santa Barbara <i>Media and Neuroscience Lab</i> Department of Psychological & Brain Sciences, and Department of Communications, UCSB, CA
	<ul style="list-style-type: none"> <li>• Assists on studies regarding media and the moral brain</li> <li>• Cleans, codes and analyzes survey data from Qualtrics using Excel and Rstudio</li> <li>• Schedules and screens participants for and in fMRI appointments</li> <li>• Examines fMRI and eye tracking data from scans to minimize technical errors</li> <li>• Modifies 3D printing program for fMRI scans in Python to create 3D models of participant brain scans</li> </ul>

October 2022 -  
Present

### **Research Associate**

PI: Dr. Mary Hegarty, University of California, Santa Barbara  
*Spatial Thinking Lab*  
Department of Psychological & Brain Sciences, UCSB, CA

- Researches spatial cognition, resulting in co-authorship on a poster investigating the effect daily spatial experience has on performance on spatial tasks
- Leverages R markdown to contribute to a reproducible data analysis report for coding mental rotation task for larger grant project
- Conducts statistical analyses using R and RStudio for part of the project examining spatial activities
- Acts as experimenter and researcher running participants in Virtual Reality and Omni-directional VR on spatial cognition tasks
- Participates in weekly team meetings to discuss project progress and next steps
- Runs subjects through cognitive tasks using PsychoPy and Unity applications

June 2022 -  
January 2023

### **Undergraduate Research Assistant**

PI: Dr. Sylvia Kreibig, Dr. James Gross  
*Home Sleep Study, Affective Psychophysiology Lab*  
Stanford Psychology Department, Stanford University, CA

- Scored data and organized files on heart rate variability data (ECGs) using Kubios HRV Premium for a sleep study regarding sleep bruxism and its effects on emotion on participants
- Attended weekly lab meetings on present findings conducted by graduate students
- Conducted literature review on loose and tight coupling in systems
- Gathered materials for a review on psychophysiological measures and their standardization in the field

## **AWARDS AND HONORS**

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August 2023-  
September 2023

Summer Research Experience for Undergraduates NSF (\$3,200)  
University of California, Santa Barbara  
Faculty Advisor: Mary Hegarty

March 2023

Small Undergraduate Research Grants FRAP (\$700)  
University of California, Santa Barbara

Winter 2021,  
Spring 2022 & 2023

Dean's Honors List, University of California, Santa Barbara

## **PRESENTATIONS**

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November 2023

Everyday spatial experience, video games, and their influence on spatial abilities. Poster will be presented at Psychonomics Society conference (November, 2023).

## **SKILLS**

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## **Coding**

R Studio: The R project for statistical computing (descriptive statistics, correlations, t-tests, ANOVAs, regressions, multilevel modeling) and creating models (agent-based modeling)

HTML/CSS

## **Measures**

Immersive/Omnidirectional Virtual Reality

Qualtrics

jHab

- Infant preferential looking time software

Kubios HRV Premium

- ECG data software

Data entry (Spreadsheets)

## **Graphics**

Adobe Photoshop

ClipStudioPaint

Krita

Procreate