

Oscar Babin

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EDUCATION

Master of Science in Data Science, Analytics, and Engineering

Arizona State University, Tempe, AZ | Aug 2023 - Dec 2024

GPA: 3.97

Relevant Coursework: Foundations of Algorithms, Data Science Capstone, Regression Analysis, Data Processing at Scale, Statistical Models for Biology, Data Mining.

Bachelor of Science in Applied Mathematics

Bachelor of Science in Biological Sciences

Arizona State University, Tempe, AZ | Aug 2019 - May 2023

GPA: 3.91

SKILLS

Programming Languages: Python, R, MATLAB, SQL, Julia, Bash

Tools & Technologies: Jupyter, RStudio, TensorFlow, PostgreSQL, Tableau, ArcGIS, Apache Spark, AWS, GCP, MongoDB, Cassandra, Unix/Linux, Git

Data Science Skills: Machine Learning, Predictive Modeling, Data Visualization, Data Cleaning, Statistical Analysis, MLOps

Cloud Computing: AWS, GCP

Languages: French (Native), Spanish (Advanced), Portuguese (Intermediate)

PROJECTS & RESEARCH

Synaptic Computational Interface for Neuro Advancement Design Labs | Sept 2023 - Present

Developed an interactive interface for NWB data analysis and visualizations, aiding in invasive neurological treatments and neural data exploration.

Honeywell Technology Innovation Lab | Capstone Project | Aug 2024 - Dec 2024

Collaborated with Honeywell Aerospace to address airport noise pollution by developing predictive models and creating a front-end proof of concept (QuietIQ).

Geospatial Analysis of PFAS Contamination Data | Fall 2023

Led an end-to-end geospatial analysis project on PFAS contamination sites across the U.S. using ArcGIS for spatial data analysis and visualization.

Single-Neuron Visual and Memory Selectivity in the Medial Temporal Lobe | Spring 2023

Analyzed neural recordings using NWB format and developed Python pipelines for spike time extraction and data visualization, with implications for memory encoding.

Satellite-Based Monitoring of Polar Ice Caps | CSE 572 Class Project | Fall 2024

Developed machine learning models to predict polar ice cap size using satellite data and hybrid ML approaches, demonstrating expertise in environmental monitoring.

EXPERIENCE

Freight Operator

Home Depot, Scottsdale, AZ | Oct 2021 - May 2022

Managed stocking and organization of goods, working in a fast-paced environment requiring precision and teamwork.

Teaching Assistant

International School of Arizona, Scottsdale, AZ | Oct 2022 - July 2023

Facilitated immersive learning experiences for children, taught in multilingual environments, and ensured high engagement.

CERTIFICATIONS & AWARDS

Google Data Analytics Certificate

Computational Life Sciences Certificate, Arizona State University

Dean's List | Fall 2019 - Spring 2023

National Merit Semifinalist

AP Scholar

EXTRACURRICULARS

Member, BMES Student Association

Member, Linux Users Group

Volunteer, Desert Botanical Garden

INTERESTS

Backpacking, Language Learning, Geography and Cartography, Data for Social Good