**KAYVON HERAVI**
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Portfolio LinkedIn GitHub
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**College of Southern Nevada** – Las Vegas, Nevada **February 2025- Current**
*Senior Data Analyst, Institutional Research*

- Developed data models and automated pipelines in Python to support institutional analytics and reporting, improving efficiency and scalability.
- Applied causal inference techniques (Double Machine Learning) to evaluate the impact of purchased technology on student enrollment, demonstrating advanced statistical and ML capabilities.
- Extracted and analyzed institutional data using SQL, resolving 50+ requests per semester from administration, faculty, and the public.
- Created interactive dashboards in Tableau (public-facing on CSN's website) to improve transparency and inform decision-making.
- Presented analytical results and strategic recommendations to VP-level leadership, directly influencing institutional investments and policy decisions.

**University of California, San Diego** – San Diego, California **September 2022-July 2024**
*Data Science Researcher, Trustworthy Data Management Lab*

- Conducted advanced research at the intersection of database systems, causal inference, and machine learning, leading to two peer-reviewed publications in ICDE and TaDA conferences in which I presented.
- Completed a thesis under the advisement of Dr. Babak Salimi, Assistant Professor in the Halıcıoglu Data Science Institute.
- Mentor undergraduate student on DEMA publication.
- Regularly read up to date research papers and present findings to research lab team.

**College of Southern Nevada** – Las Vegas, Nevada **September 2023 - May 2024**
*Adjunct Instructor*

- Instructed CIT 180: Database Systems, utilizing Oracle.
- Developed and administered assignments and exams based on personal database research, covering SQL and the design of conceptual and relational models.
- Taught CIT 129: Introduction to Computer Programming, using Python and Raptor.

## PUBLICATIONS

### DEMA: Enhancing Causal Analysis through Data Enrichment and Discovery in Data Lakes

Developed a framework to systematically identify and integrate diverse data sources for robust causal analysis. Utilized SQL and database concepts to merge data tables from data lakes, enhancing causal inference. Created a Python pipeline integrating Double Machine Learning for causal reasoning in user queries. Accepted as a technical paper for the 2nd International Workshop on Tabular Data Analysis (TaDA) in June 2024, with ongoing expansion of the work.

### Causal What-If and How-To Analysis Using HypeR

Implemented and developed a graphical interface using Flask and Python. The interface allows users to query data tables and visualize hypothetical changes. Utilized SQL commands, machine learning techniques, and a ground causal graph to update the database based on hypothetical user changes to a table. This work was published in December 2022 for the 39th IEEE International Conference on Data Engineering Demonstration Track.

## PROJECTS

### Who's on First

Developed a React + Vite web app that lets users design batting scenarios with MLB players, visualize stats from live data, and interact via drag-and-drop player placement. Continuing to expand the application by integrating causal inference and custom player metrics.

### Devour the Tower

Created a mobile game application using C# and Unity as part of a team that won 1st place in the 2020 Computer Science Senior Design Awards. Contributed to game design, development, and optimization for an engaging player experience.

## EDUCATION

**University of California, San Diego** – San Diego, California **2021-2024**
Master of Science in Computer Science, Concentration: Database systems
**University of Nevada, Las Vegas** – Las Vegas, Nevada **2018- 2020**
Bachelor of Science in Computer Science, **Cum Laude**

## SKILLS

**Programming Languages:** Python, SQL, C++, Java, HTML, Go, R, C#, Assembly
**Tools/Technologies:** Oracle, Git, AWS, Large Language Models, Hadoop, LATEX, Neo4j, Tableau, SciKit-learn, React, PowerBI
**Concepts:** Database Design, Causal Inference, Machine Learning, Artificial Intelligence