

# Kayvon Heravi

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## EDUCATION

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### University of California, San Diego

*MS in Computer Science*

Specialization in Database Systems

San Diego, CA

*Expected Graduation: Spring 2023*

- Awarded Teaching Assistant position Fall 2021, Winter 2021, Spring 2022

### University of Nevada, Las Vegas

*BS in Computer Science*

Las Vegas, NV

*Degree Awarded: December 2020*

- Cum Laude
- Dean's List every semester
- 1st place in Computer Science Department, Fall 2020 Senior Design Awards

## EXPERIENCE

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### University of California, San Diego

*Teaching Assistant CSE11/CSE15L*

La Jolla, CA

*Sept 2021 - Present*

- Lead T.A for CSE15L Spring 2022
- Teach lecture material to on average 60 students a session
- Tutor and aid students during office hours
- Create programs to aggregate student participation and lab completions
- Grade exams and assignments
- Lead lab sessions in person and remotely
- Supervise and work with groups of tutors

### Napa Valley Education Foundation

*Python Instructor*

Napa Valley, CA

*August 2021 - Present*

- Give students a basis of computer science knowledge through Python
- Create lesson plans and homework assignments
- Tutor and aid students during office hours
- Grade Assignments

### Mission Support and Test Services

*Cyber Security Intern*

Nellis Air Force Base, NV

*May 2019 - Dec 2019, Summer 2020*

- Utilize cyber security tools to analyze vulnerabilities and run compliance scans at Emergency Communications Network/Department of Energy(ECN/DOE)
- Procurement and testing of necessary tools to aid the Cyber Security Team
- Weekly testing to find and analyze anomalies detected on the network

### Private Tutor

*Tutor*

Las Vegas, NV

*Sept 2017 - Present*

- Tutored various students in subjects such as C++, java, python, and x86 assembly language programming

### Institute of Executive Development

*Intern*

Las Vegas, NV

*Jul 2018 - Oct 2018*

- Managed office duties and learned key office skills at Institute of Executive Development
- Assisted with preparing presentations and creating activities for coaching retreats

### Dignity Health St. Rose Hospital

*Volunteer*

Las Vegas, NV

*May 2014 - May 2017*

- Worked Front Desk helping and greeting visitors while taking phone calls from nurses
- Ran errands for nurses such as discharging patients, organizing papers, and any other needed help

## Database Systems Coursework

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### **CSE 233 Database Theory |UCSD|**

*Spring 22*

- Theory of Query languages
- Connections to logic and complexity theory including finite model theory and descriptive complexity
- Dependency theory
- Conjunctive Query Minimization
- Datalog

### **CSE 132C Database Theory |UCSD|**

*Spring 22*

- Implementations of an RDBMS
- data storage, buffer management, indexing, sorting, relational operator implementations, query optimization, and transaction management and concurrency control were covered in detail.
- Implementation of newer Big Data systems such as Spark and MapReduce/Hadoop, as well as distributed NoSQL/key-value stores and in-memory RDBMSs.

### **CSE Database Systems: Advanced Topics and Implementation|UCSD|**

*Winter 21*

- Wrote an engine for XPath, a sub language of XQuery. Implement visitors and create a tree structure of absolute path and relative path for querying an XML file

### **CSE 232A Graduate Database Systems|UCSD|**

*Fall 21*

- Learned about query optimization, transaction management, indexing, and locking

### **CS 457 Database Management Systems|UNLV|**

*Fall 20*

- Learned about relational and tuple algebra
- Created databases in mariaDB and created programs using SQL to return correct queries

## Machine Learning Coursework

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### **CSE 234 Data Systems for Machine Learning|UCSD|**

*Fall 21*

- Researched and co-wrote a paper on a profile analysis of Ivadomed's deep learning pipeline
- Read published papers and wrote summaries of machine learning systems such as Parameter Server, XG-Boost, Tensorflow, TVM, Cerebro, Deequ

### **CSE 489 Advanced Computer Science Topics (Machine Learning)|UNLV|**

*Fall 20*

- Created Python programs and reports on running machine learning algorithms on a real dataset from UCI Machine Learning Repository's online archive
- Following programs were created: OLS, Gradient Descent, Logistic Regression, KNN, MLP Classifier, and MLP Regressor

### **CS 458 Introduction to Data Mining|UNLV|**

*Spring 20*

- Computing and plotting linear regression and gradient descent with Python programming
- Implemented a hidden markov model in Python
- Implemented machine learning tools to find patterns such as good movie reviews and acronyms and their definition in large files

## PROJECTS

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### **Profile Analysis, Scalability, Usability of Ivadomed - Research Project|UCSD|**

*Sept 2021 - Dec 2021*

- Test the efficacy of a deep learning pipeline that streamlines the creation of models related to medical imaging tasks with partner for a research project in Data Systems for Machine Learning
- Presented the results of experiments to a workshop available to all CSE students and faculty
- Co-wrote a paper summarizing the research process

### **Mobile Game App - Senior Design Awards|UNLV|**

*Sept 2020 - Dec 2020*

- Created a stacking mobile game in a team for a capstone project using C# and Unity
- The game "Devour the Tower" won first place in the Fred and Harriet Cox Senior design project, Fall 2020 computer science department and still available in app stores

## ADDITIONAL

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- Computer Languages Learned at UNLV: C++ • Java • Python • Assembler (Intel x86, MIPS) • SQL
- Computer Languages learned at UCSD: Go
- Computer Languages Self Taught: R • C# • HTML
- Computer Systems: Mac • Windows • Linux
- Relevant Coursework: Database Systems • Machine Learning • Analysis of Algorithms • Data Mining • Data Structures • Compilers • Systems Programming