

# DIPANSHU SINGH

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## PROFESSIONAL SUMMARY

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Motivated and skilled Computer Science professional with expertise in AI, Machine Learning, and Software Development. Strong background in database management, web development, and data analysis. Recognized for academic excellence and commitment to continuous growth and learning.

## EDUCATION

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### ARIZONA STATE UNIVERSITY

Bachelor of Science, Computer Science

Master of Science, Computer Science specialization Artificial Intelligence

## PROFESSIONAL EXPERIENCE

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### Astro Seed

- GreenEye: Autonomous Drones for Plant Health Monitoring and 3D Mapping. Enabled drones to capture images and traverse maps using ROS and DroneKit for plant health monitoring and 3D mapping. Built and tested the environment using Gazebo for simulation.

### ARIZONA STATE UNIVERSITY | LX Space Success

*February 2022 – Current*

#### Technology Consultant (Student Worker)

- Senior staff and experienced TCs to analyze, troubleshoot, and resolve educational technology issues for clients, resulting in a 40% decrease in classroom downtime and improved overall user satisfaction.

### ARIZONA STATE UNIVERSITY | Ira. A Fulton School of Engineering

*August 2021 – December 2021*

#### ASU-101 Section leader (Student Worker)

- Section leader/Teaching assistant for ASU-101 class. Collaborated with professor and co-delivered the class material, enhancing student engagement and understanding through interactive lectures and discussions. Provided academic support and feedback, contributing to improved student performance and class management.

## PROJECTS

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### Tic-Tac-Toe App

- Developed an advanced Android/iOS Tic-Tac-Toe game implementing Minimax algorithm with alpha-beta pruning for optimal AI gameplay. Engineered multiple difficulty levels, local data storage, and Bluetooth multiplayer functionality. Achieved a highly efficient AI opponent capable of unbeatable play in hard mode, while providing an engaging user experience across all skill levels.

### Context Monitoring App

- Developed a context-aware Android application using inbuilt sensors in smartphones to capture vital signs, such as heart rate and respiratory rate, and information about symptoms, storing it in a local roomDB database. Facilitating continuous monitoring of vital signs and symptoms, promoting proactive health management and improving overall health outcomes.

### Social Media Photo Sharing App

- Developed backend functionalities for a Social Media Photo Sharing App using local SQL database and JavaScript, including features for liking, uploading, sending data to the database, and providing recommendations, as part of a group project for CSE 412 Database Management class.

## COURSEWORK COMPLETED

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Artificial Intelligence, Machine learning, Data Visualization, Computer Network Security, Mobile Computing, Database Management, Human Computer Interaction, Operating Systems, Theoretical Computer Science, Software Engineering, Data Structures and Algorithms, Applied Data Analytics with Tableau, Mobile computing, Knowledge Representation

## AWARDS AND CERTIFICATES

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Dean's List Scholar: Fall 2020 to Spring 2024

Artificial intelligence virtual program experience program by Cognizant

Computer Visions, Carnegie Mellon University School of Computer Science

## **AREA OF EXPERTIES**

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C, C++, Machine learning tools and frameworks, Python, Pytorch, Jupyter notebook, Java, C, Bash, UI/UX designing, HTML, CSS, JavaScript, Kotlin, Git, GitHub, d3.js, Data analysis, ROS, Visualization tools, NumPy, Keras, SciPy, Pandas, SQL