# Mudit Arora

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#### **SUMMARY**

Motivated Master's student in Natural Language Processing with a strong foundation software development, web development, app development, machine learning, and data analysis. Proficient in Python, C++, Swift, and web technologies, with hands-on experience in building real-world applications. Passionate about solving complex problems through innovative algorithms and data-driven solutions.

#### **SKILLS**

Languages: Python, Swift, HTML/CSS, JavaScript, R programming, C++, Java, MATLAB, MySQL

Frameworks/Technologies: Pandas, NumPy, Matplotlib, scikit-learn, PyTorch, TensorFlow, Keras, Django, Flask, SwiftUI, UIKit, Node.js, React.js, Node.js, Git

# **WORK EXPERIENCE**

**Subject Area Tutor** 

Feb 2022 - May 2024

Tempe, AZ

Academic Support Network, Arizona State University

- Fostered academic excellence for 20+ students on a weekly basis to enhance their study plans.
- Mentored and facilitated for high-level courses including Math, Chemistry, Statistics, and Programming (C++, Python, MATLAB, Java), leading to an average performance boost of 36% and enhanced understanding in these subjects.

### **Software Quality Assurance Analyst Intern**

May 2022 - Aug 2022

**Knight Transportation** 

Phoenix, AZ

- Innovatively implemented an agile approach, authoring detailed test cases and effectively resolving critical bugs via Microsoft Azure DevOps and Elasticsearch; optimized development processes, resulting in a 28% reduction in bug resolution time.
- Orchestrated a collaborative effort with Backend Engineers to optimize User Experience, resulting in a 42% increase in app engagement metrics and a 23% decrease in user complaints.

## **Undergraduate Teaching Assistant – Principles of Programming**

Aug 2021 - May 2022

Ira A. Fulton Schools of Engineering, Arizona State University

Tempe, AZ

Empowered 70+ students weekly (300+ in total) in comprehending Java programming concepts during lab sessions, while conducting interactive office hours that boosted student success and engagement by 41%, promoting accessibility and peer support for over 100 students.

# **PROJECTS**

## Mayo Clinic – Generate LLM for Repurposing Clinical Notes – Capstone Project

Engineered a Large Language Model using Python, T5, PyTorch, scikit-learn, Numpy, Matplotlib and Pandas, achieving 87% accuracy in extracting social determinants of health from clinical notes and predicting patient readmission within 30 days.

## Diabetes & Heart Disease Analysis - Data Science Project

Applied advanced machine learning algorithms in Python and R to analyze healthcare data, improving patient care outcomes by 32%, with Logistic Regression and KNN achieving 65% and 71% accuracy, respectively.

# ParkPal – iOS App Development Project

Utilized Swift and SwiftUI for MVC architecture to build an iOS app that locates nearby parking spots with directions and CoreData integration for saving favorite parking spots, leveraging Google Cloud's API to enhance user experience by 43%.

## **Photo Share - Database Project**

Developed an Instagram-based web application using HTML, CSS, JavaScript, Node.js, and SQL, featuring Login/Signup, Album, Explore, Photos, and Profile pages. Enabled users to upload pictures, like and comment on images and comments, create albums, and discover content via keyword-based search. Integrated a seamless user experience, boosting engagement by 56% through improved interactivity and content discovery.

## **EXTRACURRICULAR ACTIVITIES**

# Vice President, Google Developer Student Club

Jan 2023 – May 2024

Enhanced training quality and industry-relevant skills through instructional material improvements and technical workshops, overseeing club operations. Grew the club to 1500+ ASU members and increased social media visibility.

## **EDUCATION**

#### Master of Science, Natural Language Processing

Jun 2026

University of California, Santa Cruz

Santa Clara, CA

Relevant Courses: Deep Learning for NLP, Data Science & Machine Learning, Intro to NLP

# **Bachelor of Science, Computer Science**

May 2024 Tempe, AZ

Arizona State University

Fall 2020 - Spring 2024

Dean's List holder & New American University Scholar

- Magna Cum Laude holder (GPA: 3.77)
- SUN Award holder (demonstrating leadership, supporting students' success)

Fall 2022 - Spring 2024

Relevant Courses: Foundations of ML, Intro to AI, Algorithms in Computational Biology, Data in R & Python, Data Structures & Algorithms, iOS Mobile App Development, Software Engineering Methodologies, Database Management, Operating Systems