

NIMISHA MITTAL

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EDUCATION

University Of Southern California , Los Angeles, California, United States	Dec 2023
Master of Science in Computer Science	3.65/4.0
Guru Gobind Singh Indraprastha University - MAIT , New Delhi, India	Jul 2021
Bachelor of Technology, Computer Science and Engineering	3.71/4.0

TECHNICAL SKILLS

Languages and Databases: Python, C++, HTML, CSS, JavaScript, MS-SQL, MySQL, PostgreSQL, NoSQL

OS and Cloud Technologies: Windows, Linux, macOS, AWS EC2, AWS S3, GCP Compute Engine, GCP Storage

ML and Data Science Tools: Machine Learning, Natural Language Processing, Computer Vision, 3D CV, Data Science, Linear Algebra

ML/AI Libraries: PyTorch, Pandas, Numpy, Scikit-Learn, NLTK, OpenCV, Matplotlib, Seaborn, Jupyter, GCP Vision AI

Development and Deployment Frameworks: Flask, React, Angular, Docker, Android Studio, Git

EXPERIENCE

Amazon Robotics , Boston, United States	Software Development Engineering Intern	May 2023-Aug 2023
<ul style="list-style-type: none">Enhanced Amazon packaging efficiency by 60% through integrated camera systems and depth analysisOptimized packaging process time via 3 different cameras and hardware testing rigStreamlined integration of diverse components using Python, C++, Linux, and DockerEmployed advanced computer vision algorithms to improve object identification by 55% for swift container retrieval		
Inferigence Quotient LLP , Bangalore, India	Computer Vision Intern	Jul 2021-Oct 2021
<ul style="list-style-type: none">Analyzed over 10,000 video frames from drone footage for aerial image mosaicingDesigned a comprehensive workflow to facilitate UAV warping utilizing OpenCV modules on Linux systemsApplied advanced algorithms in computer vision and machine learning using Python and C++		
DataPitcher , New Delhi, India	Machine Learning Intern	Jan 2020-Nov 2020
<ul style="list-style-type: none">Collaborated with a team of 8+ developers to develop a Python and Java-based data sourcing application backendDeveloped and executed algorithms for verifying artifacts using image processing and machine learningUtilized Linux, AWS, and Android development for algorithm development and deployment		
One Card Solution Pvt. Ltd. , New Delhi, India	Junior Software Developer	May 2018-Feb 2019
<ul style="list-style-type: none">Conceptualized and developed diverse end-to-end Android applications for over 10 clientsArchitected multilevel architecture-based mobile applications, seamlessly integrating REST/SOAP web services with SQL databaseEnhanced mobile interaction and data transfer utilizing NFC technology		

PROJECTS

Medical Codemixed Visual Question Answering: Research-Based (Python, Computer Vision, NLP)

- Collaborated with IIITD professor to implement a cross-functional dataset and pipeline for medical codemixed VQA
- Integrated Language, Vision and Cross Modality encoders to achieve accuracy of 75%

AI Agent - Go 5X5 (Python, Algorithms)

- Designed an AI agent for Little Go (5X5) with an accuracy of 83%
- Combined the minimax algorithm with alpha beta pruning

Paying Guest Management System (Android development, JAVA, SQL)

- Engineered Android app for Paying Guest management with a multilevel architecture, ensuring enhanced security and efficiency.
- Achieved a 25% reduction in administrative workload and boosted user satisfaction by 30%

HONORS & AWARDS

Smart India Hackathon 2020 (Software Edition): 1st position at National Level; Dr. B R Ambedkar Institute of Technology

- Led team of 6 members to propose Integrated Platform for Waste Management (includes mobile and web application)

Smart India Hackathon 2019 (Software Edition): 1st position at National Level; Ministry of AYUSH

- Spearheaded the automation of ASU drug symptoms monitoring portal with a team of six using Android Studio

PUBLICATIONS

- Mittal, N.**, Singh, P.P., & Sharma, P. (2021). Intelligent Waste Management for Smart Cities. accepted at 4th International Conference on Industrial Electronic Research and Applications (ICIARA 2021)
- Mittal, N.**, Singh, P.P., & Sharma, P. (2021). Generative Adversarial Networks based PCG for games: A comprehensive study. Deep Learning in Gaming and Animations: Principles and Applications
- Waheed, A., Goyal, M., **Mittal, N.**, & Gupta, D. (2021). Domain Controlled Title Generation with Human Evaluation. Advances in Intelligent Systems and Computing, Springer

LEADERSHIP & INVOLVEMENT

MIT Startup, Recommendation Engine Developer	Nov 2022-Dec 2022
<ul style="list-style-type: none">Worked on recommendation engine for Massachusetts students, resulting in 30% surge in user experience and engagement	
NASA SUITS Challenge 2022, Team AEGIS Member	Jan 2022
<ul style="list-style-type: none">Collaborated in domain of Terrain Meshing and Machine Learning teams, contributing to success among 10+ participating teams	
IIIT Hyderabad, Summer School on Artificial Intelligence Participant	Aug 2021
<ul style="list-style-type: none">Engaged in AI learning alongside 500+ peers, expanding knowledge and skills	