# Sneha Singh
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## EDUCATION

**University at Buffalo, The State University of New York**                                    *Dec 2024*
Master of Science – Computer Science & Engineering | GPA: 3.87
- Machine Learning, Data Intensive Computing, Computer Security, Operating Systems, Deep Learning, Data Models and Query Languages, Management of IT Projects, Computer Vision, Statistical Data Mining

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, JavaScript, SQL, HTML, CSS, R, C, C++, C#
**Databases & Cloud:** MySQL, MongoDB, Hadoop, PL/SQL, PostgreSQL, AWS, Google Cloud
**AI/ML & Data Tools:** PyTorch, Tensorflow, OpenCV, Mediapipe, PySpark, PowerBI, Matplotlib, NumPy, SAS
**Development & Frameworks:** Flask, REST APIs, Docker, Firebase, Unity, Android Studio, Git
**Certifications:** (IBM) Data Analysis with Python (2022)

## WORK EXPERIENCE

**The State University of New York at Buffalo, NY | Research Assistant**          *Sep 2024 – Dec 2024*
- Designed and executed research on LLM security and hallucination detection using Meta's Llama-3.2-1B model, leveraging Python for model experimentation and evaluation.
- Engineered adversarial training techniques, reducing hallucination scores by 1.6% and enhancing model robustness.
- Built an anomaly detection pipeline using PyTorch, SentenceTransformers, and Google Custom Search API, which improved the accuracy of detecting anomalies in data.
- Analyzed experimental results with Python-based tools like NumPy, Matplotlib, etc.  and documented findings in technical reports, contributing to research in LLM security.

**Oracle, India | IT Consultant**                                                       *Oct 2020 – Jul 2023*
- Spearheaded 20+ product upgrades and patchset deployments, addressing 95% client-reported issues.
- Engineered and integrated 10+ custom APIs and automation scripts in Java linked with required databases for the Flexcube platform, boosting operational efficiency by 30%.
- Diagnosed and resolved 50+ financial software inconsistencies, strengthening data integrity.
- Collaborated with cross-functional teams to troubleshoot and resolve high priority escalations, applying Java debugging and SQL tracing under strict SLA deadlines.
- Advanced from Associate Consultant to Staff Consultant in under 2 years, recognized for technical excellence.

**IdeaLite Technologies LLP, India | Designer**                                       *Sep 2019 – Jan 2020*
- Prepared responsive front-end features using React, boosting user engagement by 30% across web campaigns.
- Designed 20+ marketing assets and integrated them into React-based applications, enhancing brand visibility and UI consistency.

**Ink in Caps Media and Marketing LLP, India | R&D Associate**                       *Dec 2018 – Jan 2019*
- Developed gesture-recognition scripts in Unity3D using Leap Motion and C#, increasing interaction accuracy by 40% in VR environments.
- Developed interactive IoT prototypes integrating brainwave sensors, Bluetooth, Arduino, and VR with motion tracking, enhancing real-time responsiveness and increasing user interaction efficiency by 25% during testing.

## PROJECTS

**Signify – A Real-time ASL Detection Application**                                        *May 2024*
- Built and deployed a real-time ASL detection system using Python, Mediapipe, and OpenCV, achieving 90%+ accuracy, leading data collection and model training, and securing 2nd place among 30+ projects at CSE Demo Days Spring 2024.