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, C, C++, Java, JavaScript, SQL, HTML, CSS, R
Databases & Cloud: MySQL, MongoDB, Hadoop, PL/SQL, PostgreSQL, AWS, Google Cloud
AI/ML & Data Tools: PyTorch, Tensorflow, OpenCV, Mediapipe, PySpark, PowerBI, Matplotlib, NumPy
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, Buffalo | 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 | Staff 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 | Graphic Designer   *Sep 2019 – Jan 2020*
- Developed graphic design solutions for marketing, enhancing brand visibility using Adobe Creative Suite.
- Created posters, logos, captions, and other graphic content for website and social media marketing.

Ink in Caps Media and Marketing LLP, India | R&D Associate   *Dec 2018 – Jan 2019*
- Prepared Leap Motion-powered scripts to capture gesture-based interactions in Unity 3D Virtual Reality (VR) environments, enhancing user engagement and interaction accuracy.
- Integrated Mindwave sensors with Bluetooth modules and Arduino to detect brainwave signals and control LED lighting dynamically, improving responsiveness and user experience in interactive settings.
- Collaborated on IoT solutions, combining VR, sensors, and motion tracking for immersive experiences.

PROJECTS

Signify – A Real-time ASL Detection Application   *May 2024*
- Developed and deployed an interactive ASL detection system, enabling real-time sign language translation using deep learning and several Python frameworks and libraries.
- Led data collection and model training, leveraging Mediapipe, OpenCV, and landmark-based recognition, achieving 90%+ theoretical accuracy.
- Secured 2nd place in CSE Demo Days Spring 2024, competing against 30+ projects.