Kushagra Tandon

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EDUCATION

Bachelor of Science in Computer Science   **May 2026**
Arizona State University   **Tempe, Arizona**

EXPERIENCE

Research Aide   **October 2023 - Present**
ASU School Of Earth & Space Exploration   **Tempe, Arizona**
- Collaborating with Dr. Reano and team for scientific accuracy and cultural relevance of virtual field experience modules.
- Incorporating Indigenous knowledge into educational materials, fostering a deep connection.
- Developing virtual field experience modules for the NSF-funded WORM Portal project using immersive technology, increasing user engagement by 16%.

Production Associate   **April 2023 - Present**
ASU Programming and activities board(PAB)   **Tempe, Arizona**
- Planned and enhanced organization's events and activities.
- Coordinating organization's events and activities, contributing to planning and execution of over 8 diverse programming events including concerts and workshops.
- Delivering crucial technical support for events with advanced audio-visual and lighting setups, reducing setup times by 32% and ensuring smooth event operations.

Software Development Intern   **June 2023 - August 2023**
Hindustan Aeronautics Limited   **India**

- Developed scalable web solutions using HTML/CSS, JavaScript, and Servlet, improving website efficiency by 25%.
- Collaborated with cross-functional teams for real-time monitoring solutions in aerospace technology.
- Optimized workflows by designing clean and efficient code, reducing technical debt.

SKILLS

Language: HTML/CSS, SQL, JAVA, JavaScript, Python, C++, C#, Ocaml, Rust, Perl, R
Frameworks: Node.js, Flask, React.js, Bootstrap, Django, TensorFlow, PyTorch
Other: GIT, MongoDB, OpenCV, AWS, Microsoft Suite, REST APIs, Linux, Open Source, Agile

PROJECT EXPERIENCE

Facial recognition attendance system
- Created a real-time facial recognition system for educational and corporate environments using deep learning and computer vision techniques.
- Achieved a 50% improvement in attendance processing speed with expertise in Python, TensorFlow, and OpenCV.
- Enhanced identification accuracy, reducing errors by 11% and improving attendance management efficiency.
- Ensured user-friendly design, managed databases, prioritized data security, and maintained through project documentation for a comprehensive solution.

Credit Risk Prediction
- Developed a machine learning model using a Random Forest Classifier in Python with Scikit-learn to predict loan defaults, achieving 86% accuracy for quantitative financial analysis.
- Processed and cleaned a dataset with over 30,000 records to enhance model performance.
- Built a full-stack application leveraging React (frontend) and Flask (backend) focusing to provide real-time data processing.
- Deployed app on GitHub Pages and Render with 99% uptime, aImplemented scalable systems with CI/CD pipelines, reducing deployment time by 80%.

Pdf to lecture
- Designed a Flask-based backend that processes PDFs into lecture videos by integrating a custom-trained NLP model for text extraction, slide creation, and audio synthesis.
- Automated six-stage workflows, reducing processing time by 40% and manual effort by 90%
- Built a React.js frontend featuring real-time feedback, video previews, and a responsive interface, improving user satisfaction by 45%.
- Enabled seamless large file handling (up to 500 MB) and ensured efficient resource utilization by streamlining API interactions.

LEADERSHIP EXPERIENCE

Secretary   **September 2023 - Present**
TEDx Club, Arizona State University   **Tempe, Arizona**
- Ensured efficient club operation, contributing to TEDx event success and club growth.
- Documented over 30 meeting minutes, maintaining organizational efficiency and accountability.
- Facilitated communication between 15+ team members, increasing collaboration and aligning efforts toward event goals.