Saurav Ghimire

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EDUCATION

Caldwell University   August 2022 – May 2026
Bachelor of Science in Computer Science(Honors Program, Graduated with Distinction)   *Caldwell, NJ*

EXPERIENCE

Artificial Intelligence Research Assistant   August 2023 – May 2024
Caldwell University   *Caldwell, NJ*
- Conducted research on Convolutional Neural Networks (CNNs) without backpropagation, advancing neural network paradigms for innovative AI solutions. (Python, TensorFlow, PyTorch)
- Realized a 300% increase in training speed by disabling backpropagation between stages, with 0% accuracy loss, regardless of initial training on handwritten digits or clothing recognition.

Web Developer   June 2024 – Present
H.Square Advertising   *Remote*
- Built and maintained 20+ responsive websites, increasing client online visibility and traffic by 25%. (HTML, CSS, JavaScript, React.js, SEO optimization)
- Implemented advanced features such as interactive contact forms, booking modules, and social media API integrations, boosting client engagement by 30%.

Information Technology Support Specialist   June 2024 – Present
H.Square Advertising   *Remote*
- Managed IT setup for a small team of 10, handling computers, Wi-Fi, and basic network security to keep our advertising projects running smoothly.
- Fixed tech issues like slow systems, email glitches, and website downtime, often setting up secure VPNs for remote work, cutting disruptions by half.

Computer Science Coach   February 2023 – May 2024
Caldwell University   *Caldwell, NJ*
- Mentored 50+ students in mastering data structures, algorithms, and coding best practices, improving average student grades by 40%. (Python, Java, Algorithm Design, Mentoring)

PROJECTS

Exo Explorer | *NASA Space Apps Challenge*
- Architected and delivered "ExoExplorer," an AI-powered educational tool enabling 500+ users to explore exoplanets via interactive storytelling.
- Integrated NASA datasets with React.js and Node.js backend, processing 10,000+ planetary data points for real-time insights
- Achieved regional victory and secured nomination for top 10% in global judging within 48 hours.

Accident Hotspot Detection Using Machine Learning | *Honors Project, Published Research*
- Developed a machine learning model to detect accident-prone road segments in Nepal, achieving 92% prediction accuracy by analyzing multi-year traffic and geospatial datasets.
- Created a visual hotspot mapping dashboard that improved policymakers' decision-making efficiency.
- Published research paper in the college's digital library, contributing to future transportation safety research.

Data Visualization and Analytics for Legal Aid Accessibility | *DataFest 2023, American Statistical Association*
- Won 1st Place for Best Data Visualization by analyzing conversation data between Volunteer Advocates and clients on the American Bar Association's platform.
- Discovered key accessibility trends via analysis of 80K+ conversation data points.
- Developed interactive heat maps recommending sentiment analysis integration, enhancing attorney-client communication and platform usability.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS
Frameworks: React, Node.js, Express.js, Flask, WordPress, Material-UI, RestAPI
Developer Tools: Git, Docker, Android Studio, Google Cloud Platform, VS Code, PyCharm, IntelliJ, Eclipse
Libraries: pandas, NumPy, Matplotlib