Jeevan Kaphle

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Vermilllion,SD - 57069, United States

Objective

Seeking a challenging position in computer science to leverage my expertise in programming, problem-solving, and system design. Aiming to contribute to innovative projects at the intersection of software development and practical problem-solving in fields such as artificial intelligence, data science, and accessibility technology.

Experience

- **Pathway Technologies [🌐]** *May 2022 - Jan 2023*
  Junior Software Developer Kathmandu, Nepal
  - Implemented a customized software solution using Python and SQL, enhancing data processing speed by 30%.
  - Conducted analysis on real-time traffic data, identifying inefficiencies in route optimization that reduced travel times by 10%.
- **Shree-Tri Shaheed Sec. School** *Feb 2023 - Nov 2023*
  Teacher Panchamool, Syangja
  - Taught diploma-level students subjects including C, C++, and Digital Logic.
  - Developed course materials and practical exercises to enhance student understanding of programming and digital systems.
  - Evaluated student progress through assignments and exams, achieving an overall improvement in grades.

Education

- **University of South Dakota** *Jan 2024 - Present*
  Masters of Computer Science Vermillion ,United States

  Courses: Data Mining,IOT,Distributed System,Computer Vision,Seminar
- **Sagarmatha Engineering College(TU)** *2017-2022*
  Bachelors in Computer Engineering Lalitpur, Nepal
  - Aggregate: 75.12%
- **Prasadi Academy** *2015-2017*
  Secondary Education Lalitpur,Nepal
  - Aggregate: 83.0

Projects

Virtual Hospital
Tools Used: HTML, CSS, JavaScript, Python (Django Framework)

- Developed a webpage consisting of a Home Page, Login Page, and Contact Page using HTML, CSS, and JavaScript.
- Implemented a user authentication system where patients and doctors can log in to get registered on the platform.
- Utilized the Django framework for the backend, enabling secure and efficient management of user data.
- Ensured smooth user experience and responsiveness across different devices through front-end optimizations.

COVID-19 Detection Using Vision Transformer
Tools Used: : Python, Vision Transformer, TensorFlow/Keras

- Assisted in the design and implementation of transformer-based models for computer vision applications.
- Utilized Vision Transformer (ViT) for image classification to detect COVID-19 in medical images.
- Implemented object detection and segmentation to identify and analyze regions of interest in Xray images.
- Applied advanced image generation techniques to enhance data augmentation and improve model robustness.
- Contributed to the overall improvement of model accuracy and efficiency in detecting COVID-19.

Nepali Handwritten Text Recognition
Tools Used: : Python, Vision Transformer, TensorFlow/Keras

- Developed a system to recognize Nepali handwritten characters using neural networks (CNN, RNN, LSTM).

- Implemented CTC loss function to efficiently handle sequence prediction problems in text recognition.

- Converted images containing handwritten text into machine-readable/editable text with high accuracy.

- Applications include optical character recognition (OCR) and the transcription of handwritten documents into digital formats for advanced text recognition systems.

Diabetes Detection Web App
Tools Used: : HTML,CSS,JS

- Developed a web application for diabetes detection based on six factors such as age, BMI, blood pressure, and family history using HTML, CSS, and JavaScript.

- Implemented dynamic input validation and interactive data entry forms using JavaScript to improve user experience.

- Utilized CSS for responsive design, ensuring the app was user-friendly across multiple devices and screen sizes.

- Integrated basic machine learning logic through JavaScript to classify risk levels based on the user's input.

Large Language Models (LLMs) and Transformers
Understanding of Transformer architecture, including attention mechanisms and self-attention
Hands-on experience with LLMs such as GPT, BERT, and T5
Familiarity with training, fine-tuning, and deploying LLMs for various NLP tasks
Knowledge of applications like text generation, summarization, and question answering

SKILLS

- **Programming Languages:** Python, JavaScript, C
- **Web Technologies:** HTML, CSS, Bootstrap, Django, Flask
- **Database Systems:** PostgreSQL, MySQL, SQLite
- **Data Science & Machine Learning:** TensorFlow, Keras, Pandas, Matplotlib, Scikit-learn, NumPy
- **DevOps & Version Control:** Git, GitHub
- **Specialized Area:** Computer Vision, Natural Language Processing, Time Series Analysis
- **Mathematical & Statistical Tools:** Statistics, Optimization Techniques
- **Other Tools & Technologies:** Microsoft Office, Photoshop, Unity, Jupyter, VSCode, pgAdmin
- **Research Skills:** Literature Review, Experimental Design, Data Analysis, Statistical Testing, Report Writing, Presentation Skills

LEADERSHIP EXPERIENCE

- **Founder Member**
  Computer Engineering Society in Sagarmatha (CoESiS)
  - Co-founded CoESiS to enhance collaboration and promote technical skills among computer engineering students.
  - Led the organization of seminars and workshops, increasing member participation by [specific percentage].
  - Established industry connections to support educational and professional development initiatives.
- **Organizer**
  Sagarmatha Techno Fest
  - Spearheaded the planning and execution of Sagarmatha Techno Fest, hosting technology and innovation events.
  - Managed logistics, outreach, and sponsor relations, resulting in a [specific percentage] increase in event attendance.
  - Coordinated technical workshops and keynote sessions, driving engagement among participants and industry experts.

REFERENCES

Bharat Bhatta
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