Ananya Vats

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Passionate Computer Science Engineer with a strong foundation in AI/ML, software development, and networking. Experienced in developing innovative solutions, collaborating in teams, and applying problem-solving skills to real-world challenges. Constantly learning and exploring new technologies to drive impactful results.

Education

- **Bennett University** Greater Noida, Uttar Pradesh
  Bachelor of Technology in Computer Science; GPA: 8.95/10.00 *August 2022 - August 2026*
  Courses: *Data Structures using C++, Python Programming, Database Management System, Software Engineering, Design Analysis and Algorithms, Intelligent model design using AI,Natural language Processing, Computer Networks,Image and Video Processing,Advanced Computer vision and Video Analytics*

Skills

- **Languages**: Python, C++, HTML, CSS, JavaScript, SQL, Java
- **Frameworks**: TensorFlow, Pandas, Keras, Seaborn, Scikit-learn, Matplotlib, Flask, PyTorch
- **Tools**: Visual Studio, Figma & Canva, Git, MySQL Workbench
- **Concepts**: Operating System(Linux and Windows), Web-Development, Microsoft Excel
- **Soft Skills**:
  - Leadership: Led cross-functional teams and streamlined project processes.
  - Project Management: Developed strategies and coordinated teams to ensure on-time delivery.
  - Task Prioritization: Managed tasks and timelines efficiently across projects.
  - Effective Learner: Adapted swiftly to new ideas and innovation in agile environments.

EXPERIENCE

CISCO Virtual Internship 2024 Gained hands-on experience in networking, cybersecurity, and IT infrastructure through simulations on protocols, routing, and switching. Engaged in real-time problem resolution, collaborated in virtual labs, and implemented security measures to optimize network performance..

Projects

Language Translator | *NLP -NLP, HTML, CSS, Javascript*

- Developed a multilingual translation platform supporting English, Spanish, French, and Hindi for seamless communication..
- Integrated Text-to-Speech (TTS) and Speech-to-Text (STT) functionalities using Web Speech API, enabling seamless voice-based interactions that improved user accessibility for over 1,000 users across four languages.
- Built a responsive interface with HTML, CSS, and JavaScript, improving user engagement by 30%.

Robust Segmentation of Retinal Images Against Adversarial Attacks | *IMD - Deeplearning*

- Proposed a segmentation model for retinal images, focusing on accurate identification of blood vessels and optic discs.
- Evaluated model robustness with adversarial attack strategies on manipulated images.
- Enhanced model resilience and accuracy with adversarial training and data augmentation.

Mental Health Treatment Prediction | *DTI - Utilized Python, TensorFlow, Pandas, Scikit-learn, and Matplotlib*

- Designed a predictive model to assess the likelihood of tech industry employees enrolling in organizational mental wellness programs, offering insights to enhance workplace policies and mental health awareness.
- Implemented and evaluated machine learning models, including neural networks, Logistic Regression, Decision Tree, Random Forest, and SVM, achieving a training accuracy of 67.2%.

A Smart Chatbot: Mental Health Detection and Prevention | *NLP, BERT, Python, TensorFlow, Flask, Web Development.*

- Developed a compassionate and effective mental health chatbot to serve as a virtual companion for users seeking emotional support.
- Designed the chatbot to detect users' mental states using natural language processing (NLP) techniques.
- Integrated expert-based response generation to provide therapeutic guidance similar to a human therapist.

Certifications

- Algorithmic Toolbox - https://www.coursera.org/account/accomplishments/records/HBK72RKPN762
- Generative AI with LLM - https://coursera.org/verify/0RQM08KR6AD0
- Data Structures - https://coursera.org/verify/V9PX8HCLWJZW
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization - https://coursera.org/verify/3S3XP7S2WXYL
- Natural language processing with classification and vector spaces- https://coursera.org/verify/MJJJZAY1FFCM

Area of Interest

Proficient in C++ and Data Structures, with skills in Web Development, UI/UX Design, Deep learning, Image processing Machine Learning, and Cyber security.