Ujjwal Chadha

B.Tech CSE graduate skilled in C++, Python, Machine Learning, and NLP. Experienced in AI-powered automation, Deep Learning, and scalable system design. Passionate about real-time applications, research-driven solutions, and AI innovation.

EDUCATION

Bachelor of Engineering - CGPA: 8.0

Computer science and engineering • Chandigarh University • Mohali, Punjab • 2025

• Latest semester (7th): 8.73

 $10^{th} - 93\%$

Delhi Public School • Dehradun, Uttarakhand • 2019

 $12^{th} - 88\%$

Children's Academy • Dehradun, Uttarakhand • 2021

CERTIFICATIONS

- Introduction to Machine Learning
 IIT Kharagpur Swayam NPTEL 2022 63%
- Deep Learning Specialization Coursera – Deep Learning.AI (Andrew Ng) • 2024 • 100%
- Introduction of Internet of Things
 IIT Kharagpur Swayam NPTEL 2023 91% (Top 5%)

- Discrete Mathematics
 IIT Kharagpur Swayam NPTEL •2022 60%
- Probability and Statistics
 IIT Kharagpur Swayam NPTEL 2023 52%
- Python for Data Analysis: Pandas and Numpy
 Coursera Project Network - 100%

AI INTERN – AICTE-MICROSOFT & SAP (TECHSAKSHAM PROGRAM)

Feb 2025 - Present

- Developed an AI-powered Resume Screening and Ranking System using Machine Learning and NLP to automate hiring.
- Engineered TF-IDF vectorization for feature extraction, improving resume-job description similarity analysis.
- Trained an optimized K-Nearest Neighbors (KNN) model for classification, achieving high prediction accuracy.
- Implemented cosine similarity to rank resumes based on job description relevance dynamically.
- Built an end-to-end pipeline for resume parsing (PDF/DOCX), text preprocessing, and classification.
- Developed a Flask-based API for real-time resume screening and ranking integration.
- Improved model efficiency using stratified train-test splitting and hyperparameter tuning (n_neighbors optimization).
- Evaluated model performance, achieving 98.6% accuracy on unseen resume data.
- Participated in weekly AI mentorship sessions led by industry experts from Microsoft & SAP.

PROJECTS

Dungeon Escape Game (C++ with SFML)

- · Developed a 2D grid-based dungeon game with procedural layout generation and collision detection.
- Implemented keyboard-based controls, real-time rendering, and interactive traps triggering "Game Over" scenarios.
- Optimized gameplay logic for smooth rendering and modular scalability using efficient data structure.
- Utilized Code Runner, CMake, and GitHub Copilot for development and debugging.

Sentiment Analysis in Code-Mixed Video Comments Using Deep Learning

- Achieved 88% accuracy, outperforming Naive Bayes and SVM by 10-13%.
- Developed a hybrid deep learning model (BERT + LSTM) for contextual and sequential sentiment detection.
- Built a preprocessing pipeline for tokenization, language detection, and normalization to handle informal text.
- Integrated the model into a Google Chrome Extension using Flask API and JavaScript, enabling real-time sentiment analysis of YouTube comments.

ADDITIONAL INFORMATION

- Technical Skills: Proficient in C++, Python, and Data Structures and Algorithms, with hands-on experience in Machine Learning, Neural Networks, and Deep Learning.
- GitHub : https://github.com/ujjwalchadha-create
- Research Paper: Authored research papers on advanced machine learning techniques, achieving up to 99.7% accuracy in fake news detection and 88% accuracy in sentiment analysis of code-mixed video comments (accepted in CMT).
- Collaboration Skills: Team Collaboration, Adaptability, Peer Mentoring, Conflict Resolution, and an Optimistic Approach.
- Interests: Exploring advancements in AI-ML, contributing to open-source C++ projects, and developing real-time systems and game frameworks.