

DHRUV NARESHKUMAR PANCHAL

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OBJECTIVE

As a dedicated and innovative student in Applied Computer Science, I am actively seeking an internship opportunity that allows me to harness my enthusiasm for technology and education, while fostering a continuous growth in my expertise and abilities.

EDUCATION

CONCORDIA UNIVERSITY — Montreal, QC
Masters in Applied Computer Science (MApCompSc)

September 2022 - Present

GUJARAT TECHNOLOGICAL UNIVERSITY — Ahmedabad, INDIA
Bachelors in Computer Engineering
CGPA: 9.72/10

June 2018 - May 2022

WORK EXPERIENCE

Notionmind Pvt. Ltd., Ahmedabad, Gujarat

31st January 2022 – 22nd April 2022

Python Intern

- Implemented image pre-processing using OpenCV to improve data quality.
- Utilized convolutional neural networks (CNNs) for advanced image feature extraction.
- Optimized machine learning models using the sklearn library.
- Developed an end-to-end deep learning solution for image similarity detection.
- Designed, trained, and validated custom deep learning models using Tensorflow and Keras.

IITD-AIA Foundation for Smart Manufacturing

25th May 2021 – 5th August 2021

Indian Institute of Technology, Delhi

Machine Learning Intern

- Developed Industry 4.0 solutions for lathe machines and implemented fault prognosis and classification using machine learning techniques for online tool condition monitoring.
- Created a web application to display real-time lathe machine data and visualizations.

BrainyBeam Technologies Pvt. Ltd., Ahmedabad, Gujarat

26th May 2021 – 15th June 2021

Data Science Intern

- Enhanced data gathering techniques and used machine learning for feature selection, classifier development, and optimization.
- Processed and analyzed data, presenting results using data visualization techniques.
- Developed automatic anomaly detection systems and monitored performance.

Vinculum Solutions Pvt. Ltd., Ahmedabad, Gujarat

9th November 2020 – 2nd April 2021

Python Intern

- Collaborated with the design team to understand user requirements and deliver technical solutions focused on performance, usability, and automation.
- Worked on the server side, updating existing programs and resolving errors to ensure the proper functioning of active programs.

SKILLS

- **Programming Languages:** Java, Python, C++
- **Cloud Technologies:** AWS, AWS CLI, AWS S3, AWS Lambda
- **Databases:** Amazon DynamoDB, NoSQL
- **Applications/Tools:** Visual Studio Code, Eclipse, IntelliJ, Git, Docker
- **Operating Systems:** Windows, Linux, Mac
- **Miscellaneous:** Problem-Solving, Data Structures and Algorithms, Object Oriented Design Patterns, SDLC, Agile Methodology, CI/CD, Competitive Programming
- **Languages:** English, Hindi, Gujarati
- **Soft Skills:** Leadership, Self-starter and Positive Attitude, Quick Learner, Critical Thinking

PROJECT WORK DETAILS

Project Name: Chess-AI (Cross-Platform Application)

- The goal of the "Chess-AI" project is to create an AI model that can compete with humans by analyzing all the potential moves that humans can make up to a specific level of depth.
- As it traverses the search tree and determines the best move to be played against humans, the AI model generated assumes the best play from both sides. To limit the number of positions traversed, this script employs artificial intelligence techniques such as Alpha-beta Pruning, Transposition Table, and Opening Book.
- The number of depths can be raised by increasing CPU and GPU utilization, which will improve the evaluation function. The project is presently in the development stage, and numerous methods need to be updated in order to improve the script.

Project Name: Contactless Attendance System (Console-based Application)

- This repository was developed as part of the MINEd Hackathon, an international hackathon conducted by SUNY Binghamton University's Centre of Excellence in Data Science.
- The fundamental goal of this work is to help minimize processing errors by employing facial recognition technology to create an automated and efficient attendance system.
- Facial recognition technologies such as Haar Cascade and LBPH (Local Binary Pattern Histogram) were implemented in VS Code using Python v3.8 with OpenCV-Contrib, Numpy, and Pandas.
- The primary objective was to extract usable features from the Face Identified and categorize those traits such that the face detected can be recognized.

Project Name: YouTua (Cross-Platform Application)

- YouTua is a graphical user interface (GUI) program that allows you to download videos and playlists from a variety of supported websites. It is set up to download videos in a variety of codecs, including mp4, mkv, and webm, and in a variety of quality levels, ranging from 144p to 2160p (4K).
- The core program, extractors, downloaders, and post-processors, are the four modules that make up the software. Each module is important, since it addresses different objectives and, when combined, downloads the multimedia from the supplied destination URL.
- The software also includes FFmpeg, a free and open-source software project that includes a set of libraries and tools for processing video, audio, and other multimedia files.
- There have been over 500 downloads globally for all releases on the GitHub Platform.

SPECIALIZATIONS AND CERTIFICATIONS

- Python Data Structures – University of Michigan
- Programming for Everybody - University of Michigan
- Microsoft AI Classroom Series – Microsoft
- MATLAB OnRamp – MathWorks
- Machine Learning OnRamp - MathWorks
- Python for Data Science – Cognitive Class by IBM
- Data Analysis with Python – Cognitive Class by IBM
- Data Visualization with Python – Cognitive Class by IBM
- Machine Learning with Python – Cognitive Class by IBM
- Diploma in Multilingual Computer Programming – C-DAC India