DHIVYA SREEDHAR

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EDUCATION

Bachelor of Engineering (BE),   2018 - 2022
*C*omputer Science Engineering   **GPA: 8.7/10**
*E*aswari Engineering College   **Department Rank: 3/121**

- Top 1% of Department of Computer Science
- Awarded Merit Scholarship for Academic Performance.
- Class Representative (2019 - 2022) - gained public speaking, organisation, problem-solving and negotiation skills by proactively coordinating with a class of 61 students and staff.

EXPERIENCE

Full Stack Developer   August 2022 – Present
Zoho Corporation - Part of the Manage Engine - Log360 Cloud OD Team   *Chennai, India*
- Developed 'HTTP Event Collector' log collection module, resulting in a 150% performance boost.
- Migrated and configured multiple hacksaw jars, reducing security vulnerabilities.
- Configured Japan, Canada, UK Data Center ensuring seamless international product deployment.

Programmer Analyst Trainee Intern   January 2022 — August 2022
Cognizant Technology Solutions   *Chennai, India*
- Used Informatica software to design data storage systems, provide clients with faster insight into their business.
- Extracted data from large datasets and analyzed and tested Data warehousing techniques, ETL tools.

Summer Research Intern under Dr. Prabu Mohandas   June 2021 — August 2021
National Institute of Technology, Calicut   *India*
- Created a Music Instrument Recognition model to label unlabeled audio files, eliminating the need for manual annotation.
- Implemented Convolutional Neural Network and K-nearest Neighbors classifier to identify musical instruments in monophonic audio, comparing their performance.
- The model achieved 99.17% accuracy with Convolutional Neural Network and 97% with k-nearest neighbor architecture.

Research intern under Dr. Sivaselvan B   May 2020 – May 2021
Indian Institute of Information Technology Design & Manufacturing   *Kancheepuram,India*
- Explored deep learning approaches for detecting forged facial images and videos.
- Presented a comparative study of DenseNet, MobileNet, Xception, and EfficientNet for face forgery detection.

SELECTED PROJECTS

COVID 19 AI Diagnosis Using only cough recordings | *Python,Tensorflow,librosa, pandas*
- Developed a COVID-19 pre-screening tool detecting patients, including asymptomatic ones, with 98% accuracy.
- Analyzed cough recordings from positive and negative cases, transformed using Mel Frequency Cepstral Coefficient, and trained a Convolutional Neural Network. Received 'A' grade on the project.

Lane Detection for Self-Driving cars | *Python, Tensorflow, Keras, pandas, numpy*
- Developed a VGG-16 Convolutional neural network for road segmentation and validated onthe KITTI Road/Lane Detection Evaluation dataset
- The model outperformed residual models and the lanes are segmented correctly with an accuracy of 98.58%.

Fake Tweet Detection | *Python, Tensorflow, Keras, seaborn,matplotlib*
- A Bidirectional stacked LSTM using pre-trained embedded vectors and without pre-trained embedded vectors from GLOVE are trained to detect fake tweets from twitter.
- Both models performed well and detected fake tweets with an accuracy of 99%.

Movie Recommendation System | *Python, Flask, numpy, scikit-learn*
- A movie recommendation API that uses a item-based collaborative filtering algorithm validated on the TMDB 5000 movie dataset.
- It takes a movie input from the user and recommends 10 movies based on the entered movie.

Publications

1. **Comparison of Convolutional Neural Networks and K-Nearest Neighbors for Music Instrument Recognition**
   *A*dvances in Speech and Music Technology: Computational Aspects and Applications, **Springer International Publishing**, 2021, S Dhivya, Prabu Mohandas globe
2. **Lane and Traffic Sign Detection in Self-Driving cars using Deep learning**
   International Journal of Vehicle Structures and Systems , S Dhivya, B.Padmavathi, Kavitha Datchanamoorthy, Aneesa K Banu, Mukesh Karthikeyan S, 2023, Accepted.
3. **Comparison of Deep Learning Techniques for Face Forgery**
   Journal of Social Network Analysis and Mining , S Dhivya, Santosh Kumar Uppada , B Sivaselvan, 2023, Accepted.
4. **Artificial Photosynthesizer** , International Conference on Communication and Information Systems , 2021, S Dhivya, Narmatha J, Dhanya S, Akshara S

Technical Skills and Courses

Web development: Javascript(ES6), ReactJS, Typescript(basics), Nodejs, HTML/CSS
Languages: Python, Java, C/C++, MATLAB
Frameworks: Struts, React, Flask
Developer Tools: Intellij, Eclipse,Git, Docker, AWS, Postman, Netlify, Heroku, GCP, VS Code, Android Studio
Libraries: OpenCV, Scikit-learn, Keras, Pandas, NumPy, Matplotlib
Operating System and Database: Linux(CentOS); MySQL, Firebase
University Courses: Artificial Intelligence, Software Engineering, Data Structures, Algorithms, Database management, Computer Networks, Theory of Computation, Soft Computing ,Design and analysis of algorithms

Certifications

Deep Learning Specialization (5 courses) — Deeplearning.ai on Coursera	July 2022
Foundation AI — NASSCOMM - Govt of India certification	July 2022
Data Scientist Specialization — DataCamp	May 2021
Data Science — IBM Certification	May 2020

Technical Acheievements

- Selected for the 6th Summer School on Artificial Intelligence 2022 : International Institute of Information Technology Hyderabad
- 4th Place in PRIDE Project Presentation out of 500 students in my institute for project *Artificial Photosynthesizer*, won cash prize of Rs.10,000
- 2nd prize in PRIDE Find a Bug Contest organized by Wisen IT Solutions.
- Invited to give guest lecture about *Visual Perception with Deep Learning* for the Department of Computer Science and Engineering in association with EEC-Alumni Students Chapter and CSI Chennai.
- Runner-up in GrizzHacks Hackathon, 2020
- Runner-up in hackathon HackCBS 4.0, 2021
- Successfully contributed in Hacktober fest 2019 and 2020, Digital Ocean and Dev.
- Recipient of two years Merit Scholarship for 10 CGPA (of 10) in class X
- Best Outgoing student award of 2018 Batch in my school and Scored 99/100 in Computer Science, XII (CBSE) Board Exam

Extra-curriculars AND Leadership Positions

- Participated and won Verbal Mention in various Model United Nations including CAMBIO MUN, SRM Vadapalani MUN, SSNMUN.
- Participated and won in more than 100 national and state level art competitions.
- Organizing member of Vulcans – Cultural team of EEC
- Organized Swagat, Talentia and Retweet (Cultural Fests)
- Department head of Youth Red Cross - EEC Chapter
- Department head of Design Team, designed various posters and banners.
- Selected as one of the six Student Mentors in my department. Responsibilities include mentoring junior students academically and providing guidance about their career prospects.
- Regular volunteer of Besant Nagar Animal Dispensary, worked on rehabiliting and taking care of traumatized and injured animals.
- Regular volunteer at Adyar Cancer Institute, Chennai.