Shilhora Akshay Patel

Website: https://shilhoraakshaypatel.github.io/

Mobile: +91 6281459424 **E-mail: Shilhora.akshay333@gmail.com**
Google Scholar: **Github:** **LinkedIn:**

Summary Objective

An proficient deep learning practitioner with an immense understanding of deep learning and Web development. This distilled knowledge is used for reproducing novel techniques and integrating models into web and mobile apps. creating rapid prototype or products.

Research Interest

Computer Vision

Image Processing

Self-Supervised learning

Projection methods

Education

Aug 2018 - July 2021	**Undergraduate** Dept. of Information Technology VNR Vignana Jyothi Institute of Engg. & Technology Grade: 8.0/10 CGPA
July 2015 - Apr 2018	**Diploma In** Computer Engineering Vijay Rural Engineering College Grade: 79.47/100 Percent
July 2014 - Apr 2018	**Secondary Education** Class X Blue Bells Model School Grade: 8.7 CGPA

Work Experience

Aug 2020 – Jun 2021	**Research Assistant, VNR VJIET** a) Research project: Automatic Diagnostic Model for malaria parasites Detection from microscopic Images. b) Research project: Machine Learning Approach for Plant Disease Identification using Leaf Images c) Research project: To analyze the finger tip that aids to diagnose cardiovascular diseases using Photoplethysmography (PPG) technique **Supervisor:** Dr. G. Madhu, Dr. D. Srinivasa Rao, Dr. N. Mangathayaru.

Volunteer Experience

ACM Student Chapter, VNR VJIET
Jul 2018 – Mar 2020
Programming Tutor, Webmaster and Student Volunteer
Web Development: Conducted a Workshop on Web development as an instructor.
Organized and volunteered various Workshop and Hackathon.

Technical Skills

Language(s)	Python, JavaScript, C++
Libraries	Pytorch, Kears, TensorFlow
Web and Mobile	React, React-Native, Nodejs, HTML,CSS
Databases	Mongodb, My SQL
Skills	API Design, Full Stack development, AI Programming

Certifications

Certified Course At VNRVJIET

Introduction to Python - Mr. I. Pavan Kumar

Machine Learning – Dr. G. Madhu

Certified Course At Coursera

Deep Learning Specialization - DEEPLEARNING.AI

Machine Learning Specialization – UNIVERSITY OF WASHINGTON

Research Projects

To analyze the finger tip that aids to diagnose cardiovascular diseases:
Performed study on PPG and ECG data, collected real-time data and pre-processed using DT-CWT technique. Further, we used LSTMs and GRUs to detect the cardiovascular diseases. Developed a complete diagnosis framework. This Project funded under **JNTUH/TEQIP-III** scheme and **Supervised by: Dr. N. Mangathayaru**

Machine Learning Approach for Plant Disease Identification using Leaf Images:
Performed study on Conv-nets and utilized visuial attention approach to detect the leaf infection. Developed a industry oriented solution by creating a mobile application and back-end neural architecture. This Project funded under **JNTUH/TEQIP-III** scheme and **Supervised by: Dr. D. Srinivasa Rao**

Automatic Diagnostic Model for malaria parasites Detection from microscopic Images:
Performed study on capsules network and utilized, modified it to routing mechanism to create performant solution for segmentation and detection of malaria parasites. Further, also embedded the model into website. This Project funded under **JNTUH/TEQIP-III** scheme and **Supervised by: Dr. G. Madhu**

Research Publication

[1] Lalith Bharadwaj B, K. Sai Vardhan, **Shilhora Akshay**. "Improvising the Learning of Neural Networks on Hyperspherical Manifold," Published at *LMRL workshop at NeurIPS 2021*.
https://arxiv.org/abs/2109.14746

[2] D. S. Rao, B. R. Chandra, V. S. Kiran, K. Srinivas, **S .A. Patel**, G. S. Mohan, B. Lalith. Bharadwaj. (in press). "Plant Disease Classification Using Deep Bilinear CNN," *Intelligent Automation and Soft Computing (IASC), 2021*.
http://dx.doi.org/10.32604/iasc.2022.017706

[3] G. Madhu, A. Govardhan, B. S. Srinivas, **S. A. Patel**, B. Rohit, and B.Lalith Bharadwaj. "Capsule Networks for Malaria Parasite Classification: An Application Oriented Model." *In 2020 IEEE International Conference for Innovation in Technology (INOCON)*, pp. 1-5. IEEE, 2020.
https://doi.org/10.1109/INOCON50539.2020.9298425

[4] M. Nimmala, B. P. Rani, V. Janaki, S. M. Gajapaka, **S. A. Patel**, and B. Lalith Bharadwaj. "An Imperative Diagnostic Model for Predicting CHD using Deep Learning." *In 2020 IEEE International Conference for Innovation in Technology (INOCON)*, pp. 1-5. IEEE, 2020.
https://doi.org/10.1109/INOCON50539.2020.9298423

[5] N. Mangathayaru, B. P. Rani, V. Janaki, **S. A. Patel**, G. S. Mohan, B. Lalith. Bharadwaj. (2021) "An Imperative Diagnostic Framework for PPG Signal Classification Using GRU," *Advanced Informatics for Computing Research. ICAICR 2020. Communications in Computer and Information Science, vol 1393. Springer, Singapore.*
https://doi.org/10.1007/978-981-16-3660-8_57

Achievements and Participations

1. Achieved 2^{nd} position in hackathon conducted at JNTUCES(2020).
2. Achieved 3^{rd} position in Web-development hackathon conducted by CSI Chapter.
3. Attended various workshops regarding AI, TensorFlow and Ethical AI.
4. Participated in Entrepreneurship event Ecficio (2018 and 2019).

References

Dr.N.Mangathayaru
Professor
Deaprtment of Information Technology
E-mail : mangathayaru_n@vnrvj iet.in
Phone no: +91 9866481 153

Dr.G.Madhu
Professor
Deaprtment of Information Technology
E-mail : madhu_g@vnrvj iet.in
Phone no: +91 989085728

Dr. D.Srinivasa Rao
Associate Professor & HOD, Information Technology
E-mail: ithead@vnrvjiet.in
Phone no: +91 9966232722