

Maulik Pandya

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EDUCATION

MASTER OF TECHNOLOGY

MACHINE INTELLIGENCE

UNIVERSITY: DA-IICT, INDIA

CPI : 8.02/10

2011-2013

BACHELOR OF ENGINEERING

ELECTRONICS & COMMUNICATION

UNIVERSITY: SARDAR PATEL

UNIVERSITY, INDIA

CPI : 8.4/10

2007-2011

SKILLS

PROGRAMMING

- Python • MATLAB
- Basics of C/C++

LIBRARIES

- TensorFlow • PyTorch
- Keras • OpenVino
- OpenCV • Sklearn
- ITK • Monai Framework

AI TECHNOLOGY

- Diffusion Model • RAG
- MLOps • GenAI

CLOUD TECHNOLOGY

- Azure • ML Studio

ACHIEVEMENTS

- Honored with the "Team Up to Win" award at the Philips annual award ceremony in 2020, recognized by the head of the Philips Innovation Campus, India.
- Achieved first place at IIT Kharagpur winter school on Deep Learning for Visual Computing in 2017.

PROFILE SUMMERY

- Dedicated and result oriented professional boasting over 11 years of experience in Deep Learning, Machine Learning, and Image Processing.
- Skilled in agile project management with track record of developing and deploying AI/ML solutions onto product platforms.
- Engages with stack-holders and business leaders to discuss and prototype advance research projects.
- Proficient in idea creation (patent filing), need seeking, solution road map creation, as well as coaching & mentoring, with proven ability to rapidly assimilate new technologies and excel in team environments.

EXPERIENCE

ADANI ENTERPRISE LTD | NATURAL RESOURCES | DATA SCIENTIST

May 2024 - Present | Ahmadabad, India

- GenAI and machine learning powered coal index forecasting system predicts prices by analyzing historic trends, relevant indices and sentiments driven from geopolitical news and reports.
- Dynamic pricing focus on machine learning based customer segmentation and scoring to dynamically adjust prices with precision and agility, leading to increased revenue and customer satisfaction.

PHILIPS | RESEARCH DEPARTMENT | DATA SCIENTIST

June 2018 - May 2024 | Bangalore, India

- Developed an AI tool for HCC (hepatocellular carcinoma) detection, achieving deep learning based liver and lesion segmentation on CT/MRI scans, with a patented machine learning model for LI-RADS characterization and scoring. Integrated solution into Philips' VITAMIN, intellispace discovery, intellispace portal, deployed widely.
- Created an AI pipeline for lung nodule detection and characterization under a public-private partnership to detect and classify lung nodules in CT scans. Conducted AI in healthcare training for SDAIA data scientists.
- Engineered a deep learning based classification system for rapid Hemorrhagic stroke detection from CT scan using MIP images generated from multi point view. Utilized Gradcam++ for hemorrhage localization in 3D volumes and approach extended to CBCT data.
- Contributed to the development of a non-invasive vital monitoring using ultrasound wearable, including real-time artery identification, pulsating artery diameter estimation, velocity profiling and blood flow calculation modules.

CONTINENTAL AG | ADVANCE ENGINEERING GROUP | SENIOR ENGINEER

Nov 2016 – June 2018 | Bangalore, India

- Actively participated in the creation of an object detection and classification framework powered by Machine Learning.
- Crafted real-time automotive applications utilizing deep learning and diverse region proposal architectures.

HCL TECH IMAGING TECH LAB | MEMBER TECHNICAL STAFF

May 2015 – Nov 2016 | Bangalore, India

- Engineered a driver authentication system that grants vehicle access to verified users through facial bio metric identification using near IR camera setup.
- For the departure warning system, developed a lane marker curve fitting solution that tracks using a Kalman filter and selects adaptive ROIs based on confidence analysis.

TCS | ASSISTANT SYSTEM ENGINEER

Sept 2013 – Apr 2015 | Pune, India

- In the development of a multi-camera panoramic surveillance, contributed to the detection and tracking of objects. My primary focus was on formation of demosaiced image and mathematical model for viewpoint stabilization utilizing vehicle INS data.

PUBLICATION & PATENT

- Hybrid AI based stroke characterization with explainable model, Journal of the Neurological Sciences, 2019, vol. 405, pages 162-163
- Analyzing liver lesions in medical images, WO2023139086A1.
- Training a model to perform a task on medical data, EP3937084A1, WO2022008630A1.
- Selecting a training dataset with which to train a model, EP3940597A1, WO2022013264A1.
- System and Method for Continuous Learning for Medical Image Segmentation Algorithms, WO2023104464
- Managing a model trained using a machine learning process, WO2023073092A1.
- Method to find Optimal Color and Power Doppler Settings for Ultrasound based Flow Measurements, patent filed on Jan 2023.
- Systems and methods for identifying a vessel from ultrasound data, EP3928709A4, WO2021259713A1.
- Ultrasound data processor, EP3967237A1, WO2022013279A1.