

Janhavi Khindkar

MACHINE LEARNING ENGINEER · QUANTIPHI

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Summary

Being a hard worker with a positive and never give up attitude and with deep interest in field of Computer Vision and Deep Learning, I aspire to develop effective and intelligent solutions and contribute towards betterment of the society.

Education

Pimpri Chinchwad College of Engineering

B.E. IN COMPUTER ENGINEERING

9.28

Aug. 2016 - Present

Sarhad Jr. College

HSC

85.54%

Mar. 2015 - Aug. 2016

Sarhad International Pune

CBSE

10

June. 2013 - May. 2014

Publications

Inventor : Khindkar, Janhavi M. **An efficient and scalable architecture for underwater plastic detection and cleaning using Underwater Autonomous Vehicle (AUV) and CycleGans as Data Augmentation technique to convert in air plastic to underwater style.**

Patent No : 202021028978

Inventor : Khindkar, Janhavi M. **AUTONOMOUS UNDERWATER VEHICLE FOR PLASTIC DETECTION, PLASTIC PROCESSING AND CLEANING,**

Patent No : 201921043504

Author: Janhavi Khindkar **Computer Vision based Autonomous Underwater Vehicle with Robotic Arm for Garbage Detection and Cleaning**

Academic Projects

CycleGans as Data Augmentation for Underwater Plastic Detection and Cleaning

Apr. 2020 - Present

COMPUTER VISION, ARTIFICIAL INTELLIGENCE, CYCLEGANS

- I am currently working on this research project right from collecting and creating dataset from scratch as there's no dataset readily available on internet for this problem statement
- Also I am trying to implement my idea of using cyclegans as Data Augmentation technique to convert in air plastic to underwater style for underwater plastic detection. Different algorithms like Faster RCNN or YOLO/SSD can be compared for efficiency on dataset.

Underwater Autonomous Vehicle for Plastic detection and Cleaning Using Computer Vision and robotics (BE Project at Persistent Systems Pune)

Aug. 2019 - May 2020

COMPUTER VISION, ARTIFICIAL INTELLIGENCE, IOT, STEREO VISION

- An underwater autonomous vehicle capable of detecting underwater garbage using Image Processing and Keras
- The designed machine would be able to detect the plastic, calculate distance using sonar and OpenCV and then collect the detected garbage using Robotic Arm.
- The collected garbage would be compressed in a compressor attached and would be collected in an attached net.

Multiclass Image classification on UC-Merced LandUse Dataset

Aug. 2019 - Present

ML COMPUTER VISION, MACHINE LEARNING, IMAGE PROCESSING, DCT, LBP, FUSION OF CNN

- This project aims at classification of remote sensing image dataset.
- The model developed for classification is a fusion model of spatial features with dct features. 3-layer fusion model of cnn is used with dct and lbp to improve the accuracy of prediction

Improving Strength of Diffie-Hellman algorithm by providing Authentication and confidentiality

Apr. 2020 - May. 2020

CRYPTOGRAPHY, ENCRYPTION, DIFFIE-HELLMAN

- For improving strength we have used CRC and Modular arithmetic along with power function. Our algorithm provides security against MITM attacks.

Artificial Neural Network Optimization using Genetic Algorithm

Apr. 2020 - May. 2020

ANN, GENETIC ALGORITHM,

- Optimization of ANN using Genetic Algorithm instead of BP algorithm.

Breast Cancer Classification on Breast Cancer Wisconsin (Diagnostic) Data Set using Machine Learning

Mar. 2020 - Apr. 2020

MACHINE LEARNING, LOGISTIC REGRESSION, SVM, RANDOM FOREST

- A python application to classify Breast Cancer. We used PCA and Backward Elimination techniques for feature extraction.
- We compared different classification algorithms like SVM, Kernel SVM, Random Forest, Logistic Regression, Naive Bayes and K-Fold Cross Validation was used to avoid overfitting and best accuracy was given by Kernel SVM

NGO Helper App (Applied CS Google)

Mar. 2018 - Apr. 2018

ANDROID STUDIO, FIREBASE DATABASE

- An Android app that helps people to communicate with NGOs by easily finding nearby NGOs and their information through app, so that they can help society by donating the needful things and thereby contributing towards their progress and a better living.

Event Registration and feedback app(ACMW-PCCOE)

Feb. 2019 - Feb. 2019

ANDROID STUDIO, QR CODES, MYSQL

- The project aims at automating the registration process for events of our ACM-W chapter.
- It helps the participants to register for events, if fee is there they can pay the fee.

ESXI Vm Automation and vulnerability assessment(Internship)

March. 2019

ESXI SERVER, VSPHERE

- The project aims at automating installation of vm's on ESXI server and exploiting vulnerabilities and embedding malware to gain access of systems.

Experience

Quantiphi Analytics Solution Private Limited

India

MACHINE LEARNING ENGINEER

July. 2020 - Present

Persistent Systems Pune.

Pune, India

PROJECT INTERN

Jun. 2019 - May 2019

- Built an autonomous underwater vehicle capable of detecting underwater plastic and collecting it. It was my BE capstone project.

HackersDigital Pune.

Pune, India

SECURITY ENGINEER AND ANDROID DEVELOPER

March. 2019 - April. 2019

- Implemented Android app for loan collection.
- Build and automated installation of vms on ESXI servers.

PCCOE ACMW .

PCCOE, Pune

PRESIDENT AND DEVELOPER HEAD

August. 2018 - August. 2019

- Organized workshops for women and conducted seminars and competitions.
- Automated registration and feedback system of acmw.

Activities & Achievements

2019	Google Explore ML Instructor,	PCCOE, Pune
2020	Water Olympiad Winner , University Level Project Competition	SPPU, Pune
2019	Persistent BE project Select, Doing final year BE project with Persistent System Pune	Persistent, Pune
2019	Semifinalist of Avishkar , State Level Project Competition	SPPU, Pune
2017	Qualified Google Codejam round 1,	PCCOE, Pune
2019	Semi-finalist, Reached the Semifinal round of TCS Codevita 2019.	PCCOE, Pune
2018	GRACE HOPPERS CELEBRATION INDIA (GHCI) scholarship,	PCCOE, Pune
2016	Lila Girl, LILA Poonawala Foundation Scholarship holder of Rs. 60,000 for all academic years	LPF, Pune
2016	Kiran Girl Scholar, Persistent scholarship holder of Rs. 40,000 for all academic years	Persistent, Pune
2018	President of PCCOE-ACMW,	PCCOE, Pune
2018	Mentorship Head and Developer of PCCOE-ACMW,	PCCOE, Pune
2019	Selected for ACM Summer School at COEP Pune,	COEP, Pune
2017	Selected for Applied CS Google.,	PCCOE, Pune
2017	Semi-Finalist for Lady-Ada Competition,	PCCOE, Pune
2018	Earned badge for Algorithms domain on Hackerrank, (achieved 3 off 4 stars)	Hackerrank
2010	State Level Hockey Player.,	KSDSV, Satara
2011	Secured 1st position in class and 275 State rank , International Olympiad of Mathematics	KSDSV, Satara
2014	Best Outgoing Student at Sarhad International School ,	Sarhad, Pune
2019	Attended ACM Summit,	Jaipur