# Shreyas Vedpathak

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#### **EDUCATION**

Jul 2018 – Jun 2022 Pune, India MIT World Peace University, Bachelor of Technology ☑

Branch: Computer Science and Technology

CGPA: 9.52

Jul 2016 - May 2018

Sir Parashurambhau College, HSC

Pune, India

Branch: Science Percentage: 81%

## **SKILLS**

Python • C++ • Docker • AWS • MySQL • MongoDB • Scikit Learn • OpenCV • PyTorch

Tensorflow • HTML • CSS • JavaScript • jQuery • Flask • Node.js

## PROFESSIONAL EXPERIENCE

Nov 2021 – present Ahmedabad, India

## **Computer Vision Intern,** *Upjao Agrotech* ☑

- Worked on novel problems related to the Agro-industry with Deep Learning as well as traditional computer vision methods with OpenCV.
- Created a modular Python package that would generate a numerical report based on the spatial properties of images. Improved server response time by 45 percent.
- Contributed to the research team by brainstorming and authoring 2 patents.
- Restructured the server architect to make it scalable and flexible with Docker and Kubernetes and faster to develop.

Aug 2021 – present Palo Alto, USA

#### **Mentor,** *DeepLearning.AI* □

- Helped candidates enrolled in specific Coursera courses by solving their doubts, sharing learning material, and career advice.
- Test new lab exercises before they are released to enrolled students.

Mar 2021 – Jun 2021 Pune, India

## **Data Analyst Intern,** *Analytics Domain* □

- Created a web application-based analysis tool that would leverage data from public APIs and web scraping.
- Curated 2 courses for Machine Learning and Deep Learning topics at the beginner and intermediate levels.
- With the produced courses and a variety of user-side UI features, developed a web appbased Learning Management System.

## **PUBLICATIONS**

Jun 2021

## Genomics, High Performance Computing and Machine Learning,

UIJRT (United International Journal for Research & Technology) ♂

The survey paper seeks to investigate, in a straightforward manner, what genomics is, where high-performance computing and machine learning come into play, current applications, and potential future scope.

Nov 2020

## PCOcare PCOS Detection and Prediction using Machine Learning Algorithms,

Bioscience Biotechnology Research Communications 🗷

This study employs 5 Machine Learning Algorithms to develop a system that can aid in the early diagnosis and prediction of PCOS therapy based on an optimal and minimal set of parameters. Achieved 90% accuracy on test data.

#### **PATENTS**

Jan 2022 Ahmedabad, India

## A method and system for Encoding and Decoding data on objects by using geometrical shaped markers., *Patent Pending*

A strong alternative to QR codes, barcodes, and RFIDs for simultaneously tagging, tracking, and recognizing multiple objects using computer vision techniques.

## **AWARDS**

Nov 2020

## Best Paper Award,

*International Conference on Intelligent Systems, Data Science and Computing* □ Best Research Paper Award in Machine Learning Track.

## **PROJECTS**

Nov 2021 - present

**AutiScan,** Final Year Project □

- Collect data on autism-affected Indian children and determine whether or not they have ASD.
- The candidate's reaction to a reference video is recorded, and their facial landmarks are utilized to classify them using a CNN + RNN deep learning model.
- Increased accuracy from 60% to 90% using finetuning.

May 2021 - Sep 2021

Segmentation of Fire and Smoke in Nano-Satellite Imagery using Mask R-CNN and Res-UNet, Research Project

- Separated natural objects such as clouds, snow, and rivers against smoke caused by a forest fire using Image Segmentation.
- Achieved 0.925 and 0.45 IoU scores using Instance Segmentation and Semantic Segmentation respectively.

Jun 2021 - Jul 2021

## Loan Management System - Flask API, Private Project

- Simple loan management REST API made with Flask and SQLite.
- Token-based authentication.
- Flask Blueprints for future scaling.

Oct 2020 - Nov 2020

**PCOcare: PCOS Detection & Prediction using ML,** Research Project ☑

- Utilised Exploratory Data Analysis to build a hypothesis.
- Feature Engineering, Model building, and Ensembling of models were used to test the hypothesis.

## **COURSES**

TensorFlow: Advanced Techniques, deeplearning.ai

The Complete 2020 Web Development Bootcamp by Angela Yu, Udemy

Generative Deep Learning with TensorFlow, deeplearning.ai

Modern Application Development with Python on AWS Specialization, Coursera

**Docker and Kubernetes: The Complete Guide,** *Udemy*