

CHAITANYA SHEKHAR DESHPANDE

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EDUCATION

Indiana University, Bloomington

Master of Science in Computer Science (GPA: 3.84)

Jan 2021 – Present

Bloomington, IN

Savitribai Phule Pune University

Bachelor of Engineering in Computer Engineering (Grade: First Class with Distinction)

Jul 2013 – Jun 2017

Pune, India

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript, C, C++, HTML/CSS

Databases: MySQL, MongoDB

Other Technologies: Node.js, Express.js, ReactJS, Flask, Django, REST APIs, Microservices, Keras, TensorFlow, PyTorch, scikit-learn, Git, Hadoop, Spark, R, MapReduce, Tableau, MATLAB, AWS, Kafka, Caffe, CI/CD, Kubernetes, Kubeflow, Docker

EXPERIENCE

Indiana University

Associate Instructor- Applied Machine Learning

Aug 2021 – Present

Bloomington, IN

- Mentoring and supervising 40 students per semester for a project-based course, with an in-depth understanding and applications with a diversity of Machine Learning and Deep Learning algorithms along with projects:
 1. Cats vs. Dogs Detector- A Computer Vision Deep Learning project to predict whether the image consists of a cat or a dog, and to predict where it exists in the image, using the Object-Oriented API of the Perceptron model along with its implementation of PyTorch achieving a classification accuracy of 62% along with Mean Squared Error for image location of around 0.08.
 2. Home Credit Default Risk- To predict whether or not a client will repay a loan, using a Multilayer Perceptron model in PyTorch achieving an accuracy of 95%. The same was implemented using different Boosting algorithms as well, earning around 91% accuracy.
- Developed and built up a Docker container with the latest versions of all the necessary upgraded ML-related libraries and frameworks and ensured compatibility with different Operating Systems.

Cognizant Technology Solutions

Machine Learning Engineer/Administrator

Nov 2017 – Dec 2020

Pune, India

- Conceptualized and implemented a Full Stack and Object-Oriented Python (scikit-learn) and JavaScript framework (MERN)-based Data Analytics and Machine Learning Software to predict the number of future requests/workload from weekly statistics, ensuring at least a minimum number of resources to be present for work, causing no delay in client deliverables, and reduced the team management's manual report generation time, effort, and resources approximately by 70%.

PROJECTS

Obesity Level Estimation and Health Recommendation System

- Accomplished a Full Stack Machine Learning application to estimate Obesity Level using Multi-class Classification based on Obesity Dataset using Python, ReactJS, Node.js, MongoDB, Express.js with REST APIs, stepping up the accuracy to 97%.

Luddy Artificial Intelligence and Experience Lab for Eli Lilly and Co.

- Implemented a Microservices Architecture-based software with ReactJS, Python, Flask, Django, MySQL, and RabbitMQ, which automatically generated summary of adverse effects of different medicines through XML data from DailyMed dataset using Transformers, BART, BERT, GPT-2, and T5 algorithms, reducing the time required to study adverse effects for Clinical trials by 60%.

Road Trip Planner

- Engineered a Python-based Artificial Intelligence Road Trip planner application to help travelers, using a Heuristic algorithm that returned accurate transport routes between 2 cities in the USA based on time, distance, highway numbers, and safety, based on human requirements.

Kubeflow pipeline with BERT and AWS Sagemaker

- Created a Kubeflow pipeline with BERT model and AWS SageMaker, to learn the MLOps process of scaling the machine learning process of sentiment analysis of the IMDB dataset.