Abhishek Chavan

Project engineer (Machine Learning)
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LinkedIn | GitHub

EDUCATION

CDAC 2021 - 2022
Big Data Analytics PG-Diploma Bangalore
Percentage: 79%

TRINITY COLLEGE OF ENGINEERING 2015 - 2019
Mechanical Engg BE Pune
Percentage: 68.67%

ZEAL POLYTECHNIC 2012 - 2015
Mechanical Engg Diploma Pune
Percentage: 71%

EXPERIENCE

CDAC | Project Engineer (ML) Bangalore, IN | 05/2022 – Current

1. As a Project Engineer at CDAC, I specialize in developing ML models tailored for diverse cybersecurity applications. My role involves seamlessly integrating these models into machine learning operations (MLOps) to oversee progress tracking, experimentation, and deployment.
2. I am actively engaged in the generation of pertinent data and extraction of meaningful insights for our latest project focusing on High Quality Node Ransomware Detection.
3. Proficient in managing end-to-end ML pipelines, I bring a wealth of experience to the development and implementation of cutting-edge solutions in the cybersecurity domain.

SUMA SOFT (FWBS) | SME, Data Analyst Pune, IN | 09/2020 – 12/2021

1. Utilized data analysis and Machine Learning to identify irregularities, trends and patterns in web server logs applications, leading to the implementation of targeted training programs that improved website productivity by 10%. Managed a team of 6, providing guidance and support to ensure adherence to company policies, resulting in 25% better accuracy rate in projects decisions.

SKILLS

Programming Languages	Python
Libraries/Frameworks	Pandas, Numpy, Matplotlib, Seaborn, Scikit-learn, Tensorflow, WebAPI, REST API, StreamLit, Anaconda
Tools / Platforms	MLOps (Zenml and MLflow), Deep Learning- CNN, ANN, Kubeflow, Apache Spark, CI/CD, Docker, GIT(Git Lab, Github), Django (Learning)
Databases	SQL, MySQL, MongoDB

PROJECTS / OPEN-SOURCE

ENCRYPTED MALICIOUS DNS TRAFFIC DETECTION (CDAC BANGALORE, DEC 23-PRESENT)

1. Established a dedicated DNS-over-HTTPS (DOH) setup on a virtual machine, successfully resolving all encrypted DNS requests through DOH. Conducted packet analysis using Wireshark, with a primary focus on stream index, to extract relevant features and construct a comprehensive dataset.

2. Implemented an end-to-end machine learning pipeline incorporating advanced algorithms such as Random Forest, Categorical Boosting, XGBoost, and Naive Bayes. Leveraged this pipeline to effectively detect the malicious nature of encrypted DNS traffic, showcasing a proficiency in cybersecurity and machine learning integration.

MALICIOUS DOMAIN DETECTION (CDAC BANGALORE, MAY 22-NOV 23) | Link

1. Led the development of a new feature that utilized machine learning to detect and prevent phishing attacks on the companys web applications, reducing the number of successful attacks.
2. Collaborated with cross-functional teams to integrate Malicious Domain Detection, TypoSquatting Checker, and Domain PunyCode Identifier tools into the companys security platform, increasing customer satisfaction by 15%.

WEB SERVER LOG ANALYSIS (SUMA SOFT PVT. LTD. NOV 20 - NOV 21) | Link

1. Analysis of web server logs is an effective method for finding irregularities on your website. We identify anomalies in server logs that can point to security concerns, performance problems, or other issues with your website.
2. By noticing, for instance, unusually high traffic or requests coming from a certain IP address, you can potentially identify a DDoS assault or other security concern.

BRAIN TUMOR DETECTION USING ML AND DL (CDAC PG-DIPLOMA DEC 21-APR 22) | Link

1. Played a pivotal role in advancing clinical practices through the implementation of cutting-edge technologies for Automatic Brain Tumor Detection. Overcoming challenges related to the limited acquisition of a substantial number of MRIs, I led the development of a sophisticated deep learning model.
2. This model integrates few-shot learning techniques and Hyperparameter Optimization to achieve optimal performance in the critical task of brain tumor detection. This project underscores my expertise in the application of machine learning and deep learning methodologies to address real-world challenges in healthcare.

CERTIFICATIONS

- Data Science from Ethans Academy - Ethans Academy.
- Part of 18th International Conference on Information Systems Security at IIT Tirupati. - IIT Tirutpati.
- TCS NQT October 2020. - TCS.