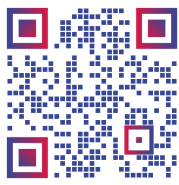


Ketha Tirumuru

Machine Learning Engineer and Python Developer



An enthusiastic and passionate Machine Learning Engineer and Python Developer with 4.5 years of experience with ability to apply ML techniques, leverage algorithms to solve real-world business problems and excited to be part of making smart things even smarter. Established ability to deploy AI solutions to production for real-world problems in the cloud. Contributed to various impactful projects in healthcare and retail domains.

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WORK EXPERIENCE

Machine Learning Developer Johnson & Johnson

Seattle, WA, US

05/2021 - Present

Remotely collaborated with JnJ, Data Science Teams at Seattle and Bangalore

Achievements/Tasks

- Experienced in building end-to-end ML projects. Simultaneously worked on multiple machine learning and Deep Learning projects related to Structured Data, Computer Vision and NLP in Health care and Supply-chain domains. Projects - ATPML, AISI, iDoc, OTIF-D, AIVI-FUJI, Ai-Hub, deepCrystal, deepParticle, SuperUser, NCAD, QnA.
- Second-authored one paper and published within the JnJ Internal Data Science Consortium.
- Secured multiple projects by building expected proofs-of-concept with no delay.
- Worked on OTIF-D project in Supply Chain domain which consists of 350 variables, 4 Billion records is a structured data project having OTIF Data, Inventory and Forecase Data. We solved this problem by applying different ML clarification Models.
- Developed and deployed AISI (AI based Smart Inspection) Project for DePuySynthes part of JnJ who makes medical devices. It is a computer vision problem where we used to detect surgical components in Loaner trays when JnJ send these trays to hospitals and Vice versa. Around the world JnJ is having 5000+ trays from different countries. We are able to predict 94%.
- Supervising the development of a modular and easy-to-use platform called MFlow for deployment of ML, UI and API Applications which is adopted by various ML Teams across the organization. Worked on Ai-Hub where we have many ready to use models.
- Worked along with Principal ML Engineers to formulate solutions for various use cases, annotation strategies on complex datasets and image analysis. Worked on multiple Django, Flask and Fast API Applications.
- Continuous engagement with global business teams on presentations and business requirements.
- Experience on MLOps. Implemented fully automatic CI/CD pipelines using Xena (Bitbucket, Jenkins and Artifactory). Worked on docker containers. Deployed no.of ML Applications, Django, Fast, Fast API Applications.
- Worked on different Azure cloud services like Subscription, Resource Groups, ARM Templates, storages, Service Accounts, Active Directory, Subnets, CIDR, Firewalls, Inbound Port, VMs, Private Endpoints, ACR, ACI, MYSQL, Databricks, Azure ML Studio etc. used for resource utilization and deployments.



WORK EXPERIENCE

Python Developer

TTT

08/2018 - 04/2021

India

Achievements/Tasks

- Worked on SAS-Business-Prod Django application which is used by Advantage Solutions merchandising service programs for the nation's largest retailers and consumer brands in the United States and around the world.
- Got hands on experience in creating website prototype from Django skeleton and building out Models, Views, Templates using DTL, HTML, Bootstrap classes for multiple web pages.
- Created functional and CBVs that interact with MySQL and Postgresql DB using Django ORM for claims related database transactions.
- Experienced in working with various Python IDEs like IDLE, PyCharm, Visual studio code for developing and debugging Python scripts complying with PEP-8 standards. Experienced in working with virtual environments.
- Familiar with RESTful web services using django-rest framework. Basic Knowledge on different Machine Learning Algorithms. Intermediate Experience in Web Technologies like HTML, CSS.
- Got experience with Docker and Docker-compose. Experienced in working with various DevOps tools like Git, Docker, AWS-EC2, AWS-S3.
- Experienced in using Numpy, Pandas, Scikit-learn, Matplotlib libraries in Python. Experienced in working with SQL databases such as MySQL, Postgres and SQLite.
- Strong program analyzing skills, with ability to follow project standards.
- Experienced the full software lifecycle in SDLC, Agile methodologies.



TECHNICAL SKILLS

Tools:

Python, Machine Learning, Deep Learning, PostgreSQL, MYSQL, Docker, Azure, AWS Sage-maker, Docker, GIT, Bitbucket, Jenkins, Confluence, JFrog Artifactory, PowerBI, Pycharm, VSCode, Linux

Packages:

Scikit-Learn, Pandas, SciPy, PyTorch, OpenCV, Pycaret, Matplotlib, Jupyter Notebook, Django, Django Rest Framework, Flask, FastAPI, Microservices

Statistics/Machine Learning:

Model Development and Deployments, Classification, Statistical Analysis, Linear/Logistic Regression, Clustering, NLP, Neural Networks, Data Visualisation, Predictive Analysis



EDUCATION

Master of Technology in Machine Learning and Computing

KL University

07/2018 - 05/2020

IN, CGPA: 9.09/10

Courses

- I got opportunity to study in one of the oldest and finest universities in India with an CGP of 9.09. Research on ML/DL applications for Accidents Prediction. Teaching Data Science and supervising dissertations.

Bachelor of Technology in Computer Science and Engineering

KL University

07/2014 - 05/2018

IN, CGPA: 8.67/10

Courses

- I got opportunity to study in one of the oldest and finest universities in India with an CGP of 8.67. The university has an eminent method of teaching and letting the student to pursue the practical knowledge along with the theory which led me to get an Internship and Job.



EDUCATION

Academic Projects

University Projects

Projects

- Analysis of Road Accidents to Identify Major Causes and Influencing Factors of Accidents which is an Machine Learning classification problem with 7 classes implemented on real-time dataset collected from police department.
- AI based Student Attendance System through face recognition.
- Development of Research & Development Dashboard for an University using Python

Academic Events

University Events

Events

- Coordinator for national wide technical fest called Samyak.
- Participated in technical fest called Ignite which is exclusively for CSE department.
- Participated in Surabhi which is national wide cultural fest conducted in our university.



PUBLICATIONS

IEEE Journal

Analysis of Road Accidents to Identify Major Causes and Influencing Factors of Accidents – A Machine Learning Approach

Tirumuru Ketha

Tirumuru Ketha, Prof. S Sagar Imambi

December, 2019

International Journal of Advanced Trends in Computer Science and Engineering, 8(6), 3492 – 3497.

DOI:10.30534/ijatcse/2019/127862019

IEEE Journal

Development of Research & Development Dashboard For an University

Tirumuru Ketha

Tirumuru Ketha et al.,

May, 2018

International Journal of Engineering & Technology, 7 (2.32), 60-63. DOI:10.14419/ijet.v7i2.32.13527



PERSONAL PROJECTS

Solved Classification Problem using different ML Models

AI based GANs Project

worked on multiple Machine Learning and Deep Learning projects related to Structured Data, Computer Vision and NLP

Pizza Hut Application

Corona Application

Blog Application

Portfolio Application



CERTIFICATES

AWS Cloud Practitioner Essentials | Coursera | May'21

Programming with Python Certification