SUMANTH PASUPULETI

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EDUCATION

Indiana University, Bloomington, Indiana **August 2021-May 2023**
Master of Science in Computer Science
Coursework: Elements of Artificial Intelligence, Applied Algorithms, Cyber Defense Competitions

K L University, Vijayawada, India, **4.0/4.0 GPA** **August 2016-May 2020**
Bachelor of Technology in Electronics and Communication Engineering with specialization in image and signal processing
Coursework: C & Data structures, Object Oriented Programming, Machine Learning, Artificial Neural Networks, Pattern Recognition, Digital Image Processing, Embedded Systems, Signal Processing, Biomedical Imaging, Digital system design

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, C, C#, SQL, HTML, CSS, Verilog HDL, MATLAB, Assembly Level Programming.
Databases: SQL Server, Oracle, MySQL, SQLite, SQLAlchemy.
Tools & Technologies: Flask Framework, React Js, Tableau, PEGA, NI LabVIEW, Docker, Unity Game Engine, Git.
Libraries: Pandas, NumPy, Scikit-Learn, Scikit-Image, OpenCV, Keras, Seaborn, ggplot2, matplotlib, SciPy.
Applications: Audio Processing, Image Processing, Computer Vision, Internet of Things, Embedded Systems.
Others: Arduino Programming, MyRio, MyDAQ.
Professional Certifications: PEGA Senior System Architect (PEGASYSTEMS), PEGA System Architect (PEGASYSTEMS), LabVIEW Associate Developer (National Instruments).

PROFESSIONAL EXPERIENCE

Vkollab Private Limited (an SAP based Startup), Hyderabad, India **July 2020-July2021**
Software Engineer

- Worked as Python Developer for the Project called Business Reports which aim to provide Interactive dashboard and data management services to SAP ABAP workflow using data visualization and Machine Learning.
- Trained on various machine learning algorithms and data visualization techniques.
- Developed the backend for the application using flask and designed the entire backend pipeline for the project.
- Utilized various libraries like Pandas, NumPy, matplotlib, Seaborn, ggplot2 to visualize the data and compared the results with graphs generated using tableau to improve performance and accuracy.
- Key member in designing and developing the entire database for the project.

RESEARCH EXPERIENCE

Chexnet Reimplementation for Pneumonia detection using Pytorch: Published in International Journal of Pharmaceutical Research (IJPR)
PyTorch based implementation of the acclaimed CheXNet developed by the Stanford University to automate medical image diagnostics of Pneumonia using Dataset ChestX-ray14 which consists of over 100,000 frontal view X-rays with labelled data of 14 diseases collected from over 30,000 unique patients

PROJECTS

Astra- Hospital Management System [*Python, Flask, React Js, Node, MySQL, HTML, CSS, SQLITE, SQLAlchemy, RESTFUL API]*

- Developing an application to manage patients and payments etc. for a local hospital in India.
- Designed and developed the complete database required for the project.
- Using flask python framework for implementing the backend and using React Js implement the frontend.

Bank Customer Defection Prediction [*Tensorflow, Keras, Python]*

- Developed an artificial Neural Network trained to detect the chance of customer defection from a particular bank.
- For this project we used one of the Kaggle churn modelling dataset.
- Trained the model using 75% of data and tested with model with another 25% percent of data left.
- Obtained the Accuracy of 88% of the train dataset.

Fastest Laundry Service using PEGA [*PEGA, Scrum, Agile]*

- Lead a team of 5 to develop an application which offers an online laundry service with door-step pickup and delivery.
- Entire project is implemented in PEGA using Scrum Workflow.
- Performing design, development reviews at the beginning and the end of each sprint.
- Worked in many areas of PRPC, including configuring Flows, Flow Actions, Activities, Declarative Rules, Correspondence, Circumstancing, Product creation, SOAP & REST Service design and development.

Color Sorting Machine [*LabVIEW, Image Processing, MyRio*]

- Lead a team of 3 to develop a Model capable of segregating objects based-on their colors.
- Developed entire code using NI LabVIEW Software and personally designed the prototype required for the project which includes MyRio boards, DC, AC motors and Digital Camera.
- Obtained the Accuracy of 95% of the training Objects.

Pyro Sale Analysis [*Tableau*]

- Complete Sale analysis based on different categories on Toy manufacturing company sales data called Pyro Inc.