

K X Vinay Jose

Software Engineer

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in /kxvinayjose

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Education

National Institute of Technology, Karnataka

M.Tech in Design & Precision Engineering

2018 – 2020

CGPA: 8.47/10

Experience

Hyreo Technologies

Senior Software Engineer

Apr '22 – Sep '23

Trivandrum

- > Lead the chatbot engineering team to deploy & maintain NLP powered chatbots for our portfolio SaaS software - 65% candidate queries automated, 5 new MNCs onboarded
- > Developed the chatbot and API layer for the new Candidate Relationship Management (CRM) SaaS product - faster feature deployments using new architecture, reducing client onboarding times by a factor of 3
- > Initiated performance monitoring procedures for all client chatbots to promote responsible AI practices and improve answering accuracy from 61% up to 89%

Skills: Python, RASA, NLU, Flask, REST API, Shell, MongoDB, SQL, Git, Microsoft Azure, Docker, Kubernetes, Jenkins CI, Jira

Tata Motors Ltd.

Senior Manager

Jan '21 – Apr '22

Pune

- > Worked in Product Development - coordinated digital design, validation & testing, prepared DFMEA reports
- > Analysed issues with supplier contributions based on customer feedback to detect defects & report findings

Skills: Product development, Supplier management, Customer centricity, VBScript, MS Excel, Catia V5 macros

Tata Motors Ltd.

Research Intern

July '19 – June '20

Pune

- > Completed the project requirement objectives, **Accelerated Topology Optimization using ResNet-based Modified U-Net**, for post graduation from NITK Surathkal
- > Developed & trained a novel neural network model to predict the solution of a conventional 2D Topology Optimization problem
- > Posed as an image segmentation problem, a U-Net based solution methodology was proposed
- > ResNet modules used in encoder-decoder networks to achieve accuracy (93.7 % in test dataset) higher than previously published models

Skills: Python, Computer Vision, SQL, Scikit-learn, Pandas, NumPy, Pytorch, VBScript, Catia V5 Macros

Projects

Intelligent Virtual Assistant with NLU for CRM - SaaS product

[developed at Hyreo Inc.]

- > Developed a chatbot from scratch using RASA framework for candidates to raise concerns & answer queries using NLU, REST API layer built using Flask to handle business requirements
- > MongoDB used to store chat history data, application deployed to Kubernetes cluster using Jenkins CI
- > The new virtual assistant architecture enabled faster feature shipments - reducing client onboarding times by a factor of 3

Atliq Technologies Sales Data Analysis & Visualization using MySQL, PowerBI

[>>demo<<]

- > The real sales data of [Atliq Technologies](#) was cloned from [CodeBasics github repository](#) (made publicly available for academic purposes)
- > MySQL was used for data wrangling and analysis, PowerBI Desktop was used to create a visualisation dashboard
- > Insights were drawn on zone-wise sales all over India and identify top products, sales/profit margins in different cities

Personal Crypto Portfolio Optimization using Machine Learning

- > Incorporated portfolio diversification theories and machine learning to optimise returns from pure crypto portfolio of Top 10 cryptocurrencies
- > Prediction of cryptocurrency prices done using AutoTS and LSTM models, portfolio optimised using Markovitz mean variance portfolio theory
- > Achieved best results from LSTM model - 0.056 RMSE average. The predicted values were used to optimize the portfolio diversification strategy

Mutual Fund Portfolio Performance Prediction Analysis - Case Study

- > Predicted the profitability of HDFC Nifty Bank ETF - one of the top ETF funds in India
- > Compared the results predicted using Random Forest Classifiers and LSTM models
- > LSTM Model outperformed Random Forest Classifier by a factor of 1.78. The better model was used to predict the NAV of HDFC Nifty Bank ETF with an RMSE value of 6.65

Other Projects

- > Automation tool to test and report chatbot model accuracy for real data provided by users
- > Descriptive & Predictive Analyses of COVID-19 Student Learning Loss using R
- > Data Analysis and Visualization of Atliq Sales DB using MySQL, PowerBI
- > Data Visualization & Descriptive Analytics for Gender Gap Study in Employees DB using SQL and Tableau
- > Fake Job Postings Classifier using Random Forest Classifier and other models

Skills

Programming Python, Machine Learning, NLP, Shell, SQL, MongoDB

Technologies & Tools Git, Microsoft Azure, Docker, Kubernetes, Jenkins, Jira

Frameworks RASA, Flask, Scikit-learn, Pandas, NumPy, Pytorch

Achievements & Certifications

- > Recipient of the annual excellence award, "Making a Difference", at Hyreo Technologies in December 2022
- > Qualified in 97th percentile for GATE (Mechanical Engineering) 2018
- > Ranked in the top 1% of students nationwide in the CBSE 12th board examinations in 2013
- > Practical Deep Learning for Coders by Jeremy Howard of fast.ai in September 2021
- > Data Visualization using Power BI from Skillsoft in June 2021
- > SQL - MySQL for Data Analytics and Business Intelligence on Udemy in June 2021