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| **M Arun Kumar**  **+**91 9884129630 [linkedin.com/in/arunkumar040891/](https://www.linkedin.com/in/arunkumar040891/)  http://www.freeiconspng.com/uploads/message-icon-png-9.png [arunkmr4891@gmail.com](mailto:arunkmr4891@gmail.com) C:\Users\venkat\AppData\Local\Microsoft\Windows\INetCache\IE\LUAYIGNW\github-logo[1].png [github.com/ArunKumar4891](https://github.com/ArunKumar4891)  Summary  Ambitious Operations Software Analyst with overall 7.2 Years’ experience in Fintech Domain. 3.5+ Years’ experience in building predictive modelling, data processing, data mining in Machine Learning concepts to solve challenging business problems using Anomaly Detection, Time Series Analysis, NLP etc. Looking for a challenging role to utilize my Programming, Database, and Management skills to enhance my knowledge about new and emerging trends in the IT sector. Holds Bachelor’s in Electronics and Communication Engineering.  Job Responsibility   * Experience in building applications with **Machine Learning, NLP, Python, IBM SCAPM, Netcool and ServiceNow.** * Built Machine Learning concepts using **Anomaly Detection, Time Series Analysis,** etc. for CPU, Memory and Hard Disk Utilization in all serverswith all OS types like Windows, Linux, AIX, and Solaris**.** * Worked on **connecting** **Oracle TDW Database** and **IBM DB2** servers using python directly on Red hat Linux application servers. * Building **NLP** project using Text Classification to automate the Short Summaries (Text field) in ServiceNow incident for each generating alerts.   Technical Skill   |  |  | | --- | --- | | **Skill** | **Technology worked** | | Domain | Financial Tech (FinTech) | | Programming/Scripting | Python | | Tools/IDE | PyCharm, PySpyder, Jupyter Notebook, Python IDE on Linux, IBM SCAPM, Netcool/Omnibus, ServiceNow. | | Machine learning | Machine Learning - Linear Regression, Logistic Regression, Decision Trees, Random Forest, Ensemble Learning, SVM, Anomaly Detection, Time Series Analysis/Forecasting, KNN, K-Means Clustering, Dimensionality Reduction, Recommendation Engine, LDA, PCA, Naïve Bayes, Apriori Algorithm, Optimization, Data Analysis, Python, Pandas, NumPy, Scikit learn, Pytorch, Matplotlib, Data processing and profiling. | | Natural Language Processing (NLP) | NLTK, Text Blob, SpaCy, Stanford NLP libraries, LSTM, TF IDF, BERT, Transformer. | | Deep Learning | Neural Networks – ANN, CNN & RNN. TensorFlow, Keras libraries | | Data Visualization | Tableau, Seaborn, Matplotlib | | Project Methodology | Monitoring on Server, Applications, Capacity Utilizations using Machine Learning and automating Text Summary in ServiceNow using NLP. | | Operating Systems | Windows, RedHat Linux, AIX and Solaris |   Professional Experience:  **Project 1:**   |  |  |  |  | | --- | --- | --- | --- | | **Project Name** | **AIOPS – Anomaly Detection on Capacity Utilizations** | **Start Date** | July 2020 | | **Owner** | FIS (Internal project) | **End Date** | Till Date | | **Project Locations** | Chennai, Bangalore, and Pune - India | **Team Size** | 8 |   Project Description:  In this AIOPS Project, we are detecting Anomalies in CPU, Memory and Hard Disk on all servers if it exceeds >95% of utilization in sequence-to-sequence manner. Once detected, it will generate an Incident ticket to respective OS teams in ServiceNow ticketing tool prior to anomaly (before 4 hours) for reducing utilization. We have 45000+ servers in our organization in which we are implementing this project. We use Python for scripting, Machine Learning algorithms, Oracle TDW DB, IBM DB2 database, IBM & FIS Cloud and ServiceNow for ticketing purpose.  Environment & technology used:   * Machine learning algorithms, Python, Pandas, NumPy, Scikit learn, Pytorch, ServiceNow, Windows, Linux, AIX and Solaris OS   Contribution:   * Worked on connecting Oracle TDW Database and IBM DB2 servers using python directly on Red hat Linux application servers. * Involved in Business use cases with the requestors and verified usual behavior of the servers on Daily, weekly, monthly, and quarterly basis. * Built Machine Learning Algorithm for **Anomaly** **Detection** using **Isolation Forest, K Means, Gaussian and Univariate** Analysis on High-Capacity Utilization. Once Detected, I created a table in DB2 where these anomalies are saved in form of table from there, we deployed in our own FIS Cloud. A ServiceNow Incident is generated via ServiceNow gateway for the respective OS and application teams. * Working in collaboration with Product Managers to understand the challenges towards a product development and provide a solution with ML and AI techniques. * Participating in Data Preprocessing Techniques in-order to make data useful for creating Machine Learning Models and Building baseline models for the requirements with necessary data preparation.   Highlights:   * Recognized by managers, colleagues, and peers for integration, communication, and teamwork to ensure quality and implementation.   **Project 2:**   |  |  |  |  | | --- | --- | --- | --- | | **Project Name** | **AIOPS – Time Series Analysis on Server Utilizations** | **Start Date** | Feb 2020 | | **Owner** | FIS (Internal project) | **End Date** | Feb 2021 | | **Project Locations** | Chennai, Bangalore, and Pune - India | **Team Size** | 8 |   Project Description: In this AIOPS Internal Project, we are predicting Utilization using previous data of CPU, Memory and Disk on all servers using Machine Learning concept called Time Series Analysis. Once we gathered more than a year data from Oracle TDW Database, we built **ARIMA** model for predicting utilizations on coming days/weeks/months on respective servers. With the help of this forecasting, Capacities can be increased on respective servers to avoid space issues. We have 45000+ servers in our organization in which we are implemented this project and deployed in Cloud server. We use Python for scripting, Machine Learning algorithms like ARIMA and SARIMA models, Oracle TDW DB, IBM DB2 databases, FIS Cloud in this project.  Environment & technology used:   * Machine learning algorithms, Python, Pandas, NumPy, Scikit learn, Jupyter Notebook, PyCharm, Oracle TDW Database, IBM DB2, Windows, Linux, AIX and Solaris OS   Contribution:   * Involved in requirement gathering and Architecture design of the project for machine learning implementation. * Worked on connecting **Oracle TDW Database** and **IBM DB2** servers using python directly on Red hat Linux application servers. * Develop statistical models for various predictive methods such as **forecasting**, classification and regression. * Building baseline models for the requirements with necessary data preparation. * Bought the data into **stationary** using Holts Winter/**triple Exponential Smoothing**, **Differencing** and **Moving** **Average**. * Built Machine Learning Algorithm for Time Series using **ARMA, SARIMA** and finally we implemented through **ARIMA** Model on server Utilization since we reached 95% of critical value and 75% Accuracy (precision score) on ARIMA. Once we gathered the data from Oracle Database, created Time Series algorithm and predicted data which will be stored in a DB2 server then deployed in our own Cloud server and notified to OS, application, Capacity and monitoring teams through email alert notifications.   **Project 3:**   |  |  |  |  | | --- | --- | --- | --- | | **Project Name** | **InTrader Application Monitoring - Automation** | **Start Date** | April 19’ | | **Owner** | InTrader | **End Date** | Jan 20’ | | **Project Locations** | Chennai, Bangalore, Pune – India and US | **Team Size** | 5 |   Project Description:  InTrader is a banking domain organization where we used to monitor their servers and application using Python, IBM SCAPM tool, Netcool/Omnibus and notified to client using an Incident ticket generated in ServiceNow ticketing tool. In this project, we monitored their servers and their applications and notify them through incident if it got hung, high-utilizations and applications like OS monitoring, Logfile monitoring, Standalone SQL, etc.    Environment & technology used:   * Python, Pandas, NumPy, Scikit learn, Jupyter Notebook, IBM SCAPM, Netcool/Omnibus, ServiceNow.   Contribution:   * Involved in requirement gathering and processed the project implementation guidelines. * From the dataset, did pre- and post-profiling to understand the data and removed the items which is not required for this project. Exploratory data analysis (EDA) was performed. * Installed IBM SCAPM Base OS monitoring (Windows, Linux, Unix and AIX) with latest fix-pack versions. Working in collaboration with Product Managers to understand the challenges towards a product development. * ITCAMs like Logfile Agents, MQ agent, Internet Service Monitoring (ISM), SCAPM SQL (Standalone and Cluster) level monitoring. * Once agents installed and configured, we merged with ServiceNow through python for ticket generation if an alert gets generated. * We **Automated this project with Python coding** where it picks the Server/application status by showing agent online/offline, provided the situations assigned to those servers and generates reports on daily basis.   Highlights:   * **Completed the project 3 months** **before** the end date and appreciated by client directly.   **Project 4:**   |  |  |  |  | | --- | --- | --- | --- | | **Project Name** | **NLP Project – Automatic entity addition to text field in ServiceNow** | **Start Date** | Jan 2021 | | **Owner** | InvestOne | **End Date** | - | | **Project Locations** | Chennai, Bangalore – India and US | **Team Size** | 7 |   Project Description:  In this project, we are **automating the text fields (Short Description) in ServiceNow** when an incident alert is assigned to client team. Currently we are following the reference text from IBM tool now, we are changing that to automation via **Natural Language processing** (**NLP**).  Environment & technology used:   * Natural Language processing, Python, Pandas, NumPy, Scikit learn, Jupyter Notebook, PyCharm and ServiceNow   Contribution:   * Involved in requirement gathering and processed the project implementation guidelines. * Pulled last 5 months of incident tickets report in ServiceNow which was assigned to Client team and provided the actionable insights. * From the dataset, did pre-processing to understand the data and removed the items which is not required for this project. * Working on predicting the text summary generated in incident ticket to the client team. * Performed Text Pre-processing guidelines by performing noise removal like removing numbers, punctuations, default stopwords, etc. * Worked on Word/Lexicon normalization and Standardizations like tokenization, Stemming, Lemmatizations, Regex Expressions, etc to get cleaned text. * Currently building the model for **Sentence Classification** using NLTK, TextBlob, SpaCy, Stanford NLP libraries.     Organization:   |  |  |  |  | | --- | --- | --- | --- | | **Organization** | **Role/Designation** | **Date of Joining** | **Duration** | | Fidelity Information Services (FIS) | Operations Software Analyst II | Jan 2014 | 7.2 Years |   Thank You!! |