**Mohan Sai Jasthi**

**Kansas |** https://www.linkedin.com/in/mohanjasthi

Mohansaijasthi7@gmail.com | 19136699377

Software Development Engineer with 4+ years of industry experience in building scalable software applications, solid understanding of data structures, algorithms, distributed systems, object-oriented design principles, Agile &, test-driven methodologies.

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| **EDUCATION** |  | |
| M.S., Information Systems | University Of Central Missouri (GPA: 3.11/4.00) | **Dec 2022** |
| B.E., Computer Science | Gitam University, Hyderabad. | **Apr 2017** |

# TECHNICAL SKILLS

Languages : Java, Kotlin, Python, JavaScript, Ruby, MATLAB.

Frameworks : Rails, Spring, Hibernate, Node.js, Selenium, Django, HTML, CSS, ReactJS, Redux, React Native, Junit. Databases : DynamoDb, Oracle, MySQL, MongoDB.

Software Tools : IntelliJ, VScode, Spring Tool Suite, Selenium WebDriver, Docker, Kubernetes. Cloud & Other Tools : Azure & AWS, Git, RESTful, Heroku, Jenkins, Tomcat, Solr, Kafka, Webpack.

* Expertise in Algorithms, Data Structures, Micro Services, Data Science and Big Data Technologies

# PROFESSIONAL EXPERIENCE

# University of Central Missouri, Kansas city, Missouri

# Graduate Research and Teaching Assistant Sep 2021 – Present

* Performed statistical analysis for deeper understanding of puma customer demographics; Performed Clustering analysis on data.
* Developed automated tool to quantify potential orders; Reduced time through analytical processing from 4 hours to 3 minutes.
* Developed Cloud based Python Django and Nodejs software web application based on IOT; Designed and Created RESTful Api’s for internal and partner consumption; Participate in architectural, design and partner consumption.

**Software Development Engineer, Data Intensity Aug 2017 – Aug 2021**

* Lead a team of 3 to develop frontend application using **React**, Developed **Api’s** for users to retrieve the results from the database
* Increased the server query response time by 15% by restructuring API; Automated insertion of results in web-service for customized client report generation using python requests library.
* Monitoring customer applications component status & db, working on the internal SR’s related patching, user related issues etc.
* Worked on Patching, Code Migration, Database monitoring, User Management, Monitoring application servers.
* Applying patches for fixing bugs in applications, performing patch analysis and making the document before applying patches.
* Monitoring alerts and tablespace growth proactively. Monitoring Forms Server, Concurrent Managers, Apache Listener and bouncing these component services according to requirement.

# Academic Projects

**AWS- Node JS July 2022 – Aug 2022**

* Created a **REST API** server less application and deployed on **EC2** instance via **CICD** process using various **AWS** services.
* Programmed **REST API** in **Node JS** and utilized **AWS** services like **VPC**, CloudFormation, **EC2**, Lambda Function, **RDS**, **DynamoDB, S3, Route 53, CloudWatch**, Autoscaling Group, **AWS CLI** and, developed Rest API for library Management System.
* Create a shell script to create own Network infrastructure and application infrastructure.

# Search Engine Design and performance evaluation May2022 – June 2022

* Implemented three basic search engines using **BM25**, **tf-idf** and Cosine Similarity retrieval models. Enhanced Lucene open-source libraries to use it as the fourth basic search engine.
* Evaluated the performance of various runs with the help of MAP, MRR, Recall and P&K measures.

# Tune It (Python, Google Voice Recognition, Flask, MySQL, AWS, Alexa, S3, ELB) Jan 2022– May 2022

* Developing a reliable framework that takes voice as input using **Alexa** and create indexes.
* Delivers a set of audio clips from a pool that match the input given by users and storing the clips in an **S3** bucket.
* Scaling the application horizontally using ELB and hosting the service on **AWS EC2** instances.

**Web Application for Stock Price Predictions**

* Web scraped the data from yahoo finance website and fetched various stock closing prices and prepared then as an input for neural networks.
* Tested few different RNN’s like LSTM and GRU with auto encoders for model selection process.
* Create a website using react.js and deployed the prediction algorithm, where user can fetch the results of predictions for different companies; Training a bot to buy and sell the stocks which results in higher profits using Markov chain models.

**E-commerce Web Application Aug 2021 – Dec 2021**

* Implemented a Dynamic Single Page Application on Heroku using ReactJS, NodeJS and MongoDB which allows users to create their own static mobile friendly websites.
* Developed, testing and deployed REST Api’s using Django rest framework for retrieving the data from the database.