# KARAN VISHWAKARMA

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#### **SUMMARY**

Result-oriented software engineer with expertise in Java, Python, C #, C++, full-stack and mobile app development. Proficient in front-end technologies like JavaScript and React and experience in multiple back-end technologies, delivering scalable and reliable software solutions.

#### **EDUCATION**

Master of Science in Computer Science, University of Illinois, Chicago, GPA: 4.0/4.0 Bachelor of Engineering and Technology from IET, DAVV Indore, India, GPA: 3.7/4.0

Jan 2021 - Dec 2022 August 2016 - June 2020

# TECHNICAL SKILL SET

Programming languages [ava, JavaScript, Python, C#, Java, SQL

Database MySQL, SQLite, MongoDB, SharedPreferences, Neo4j

Web Development HTML5, PHP, CSS, ASP.NET, Angular 8, JavaScript, .NET, Typescript, ReactJS
Development Ecosystem Visual Studio, GIT, Postman, Hadoop, Gunicorn, JIRA, Amazon S3, Microsoft Azure

Operating system Windows, Linux, MAC OS X, Debian 11

#### PROFESSIONAL EXPERIENCE

# Michaels Store, Inc: Software Development Engineer 2

Jan 2023 - Present

**Technologies:** Java, Python, D3.js, Azure Cloud, S3, Gunicorn, Nginx, JavaScript, LangChain, Spring Framework, NLP

**Description**: A software for the search team to visualize the knowledge graph for the 2 million products for Michaels Inc.

- $\bullet \ Designed \ and \ implemented \ user \ interface \ using \ Django \ framework, HTML, and \ Java Script \ for \ parsing \ data \ for \ knowledge \ graph. \\$
- Deployed the application on a virtual machine with Gunicorn for scalability and Nginx as a reverse proxy for the application.
- Developed and designed the structure of the Knowledge graph using Neo4J for product category segregation in the Michaels Store.

# **CME Group: Software Developer Intern**

May 2022 - August 2022

Technologies: C#, ReactJS, PHP, ASP.NET, Entity Framework Core, PingFederate, HTML5, CSS, SAML 2.0, NUnit

Description: A web application that provides a platform for calculating risk management parameters for Future and Options trading.

- Implemented user interface using ASP.NET, ReactJS, and JavaScript for dynamic and static loading of web pages.
- Integrated SAML 2.0 authentication in the application for managing user access and protecting specific controllers of the app.
- Utilized Entity Framework Core for storing data and utilized migrations for ORM of class entities to SQL Server tables.

#### Great Lakes ADA Center, UIC: Graduate Research Assistant

Jan 2021 - Jan 2022

Technologies: Java, JavaScript, MySQL, Linux, Junit, HTML, CSS, Python, Spring Boot, REST, JDBC

Description: A software for improving the accessibility of the ADA official website in the healthcare department at University of Illinois.

- Designed and implemented user interface using NodeJS, D3.js, Vue.js and JavaScript for parsing data for ADA official website.
- Integrated natural language processing algorithms to increase search relevancy for accessibility seminars through embedding vectors.
- Utilized Spring Boot to construct the native API's and MySQL for the additional relational accessibility data in a tabular format.

### Xohani Solutions Pvt. Ltd: Software Engineer 2

Jan 2018 - Dec 2020

Technologies: Java, NodeJS, Mongoose, Express, MongoDB, MQTT network protocol, Docker, S3, Spring Boot

**Description**: A software that allows users to keep track of the vehicles through parameters like speed, fuel lid status, signals, etc.

- Designed the whole system utilizing different components in ReactIS and docker for handling large-scale microservices.
- Integrated MQTT network protocol and Google Volley for instant retrieval of information and data through cloud servers.
- Utilized SharedPreferences for maintaining the login session for the users and gateways for supporting multiple network protocols.

# **ACADEMIC PROJECTS**

# **Sentiment Analysis for Stock Prediction: Machine Learning**

Jan 2020 - June 2020

**Technologies:** Python, Support Vector Machine, Jupyter Notebook, TF-IDF algorithm

**Description**: A software for collecting user reviews and tweets for predicting the stocks using sentiment analysis.

- Designed the user interface using fragments on activities and nested layouts for better and more efficient user readability.
- Integrated libraries like Matplotlib and pandas for better visualization and efficient manipulation of data points respectively.

# **Notes up: Android Application**

Jan 2018 - Dec 2018

Technologies: MySQL, PHP, REST, Java, Android Studios, XML, SQL, SharedPreferences, Google Volley

**Description**: An Android application (with 1,00,000 downloads) that allows users to take notes and customize data.

- Designed and implemented a user interface with speech-to-text functionality enabling users to take notes through voice input.
- Persisted user data in SQLite database and leveraged SharedPreferences for faster results & efficient data loading.

#### CERTIFICATIONS AND AWARDS

Microsoft Student Partner

Dec 2018 - Jan 2020

• Algorithms and Data structures from Stanford University Coursera

April 2017 - June 2017