# SUDEEP THOKACHILU

www.linkedin.com/in/sudeep-thokachilu | +1 (512) 299 7598 | **Nationality: U.S Citizen** | https://github.com/Sudeepr2012 | Sudeepraju2012@gmail.com

## SUMMARY

Affable by nature, and hardworking by choice, I am someone who can adapt to any situation. Passionate to learn and grow in the field of computer science and machine learning. Having the ability to test and understand software along with 3 years of experience in the software development field. I am looking to utilize my technical and database management skills to take up a challenge in a reputable organization.

## WORK EXPERIENCE

### Software Engineer – United Health Group                                                    **Experience:** 1 year

**SUMMARY**: **Ansible, Solr, Apache, Bash Scripting, Unix/Linux, Python, Grafana, MySQL, PHP.**

➢ Automated error notifications during archival processes using Bash scripting, improving efficiency and reducing manual effort.
➢ Indexed big data using shell scripting that automated distribution of indexing jobs across multiple servers according to efficiency thus minimizing the
➢ Developed Ansible and Bash scripts to automate the mount/unmounting of unused NAS on multiple servers, streamlining operations as part of a CRON job.
➢ Automated the setup of Solr instances, including email notifications of instance locations and daisy-chaining indexing across multiple servers.
➢ Implemented a streamlined process for streaming large files, achieving an impressive indexing rate of a 10 GB project within an hour.
➢ Employed multiprocessing in Python to efficiently process extensive validation of CSV files, reaching up to 200 GB in size.
➢ Utilized CSV reader, chunking, and multiprocessing techniques, achieving a remarkable validation rate of 100 MB CSV files per 20 seconds.
➢ Created a Python script with SHA256 encryption to generate checksums, ensuring the integrity of projects being decommissioned.
➢ Utilized Kubernetes to deploy projects indexed with SOLR, enabling users to seamlessly download and view text in structured and unstructured data.
➢ Proposed and implemented a cost-saving method by taking down unused project deployments taking into consideration key metrics in order to reduce the footprint on Kubernetes namespace by 14%, resulting in significant savings.
➢ Contributed to the development of a tool named EASE, enabling users to search indexed data.
➢ Implemented advanced search functionalities, including keyword searches, date range queries, and file downloads.
➢ Developed the tool using PHP, JavaScript, and SQL, showcasing expertise in web technologies.
➢ Implemented user credential management to ensure secure access and usage of the EASE tool.
➢ Monitored the CPU and memory usage of deployed targets on Grafana to determine an efficient method to set limits for the usage of each.

### Cloud Engineer – NIKE/ Kloud9                                                    **Experience:** 1 year 4 months

**SUMMARY**: **Typescript, AWS, Postman, nodeJS, Javascript, Unix/Linux, API creation, Swagger, MySQL, Docker, Jenkins.**

➢ Developed and tested a python script to update the user profiles automatically from an active directory to the company's security verification DB, Okta, thus making an efficient stride to remove the manual work involved in such.
➢ Spearheaded the development of a real-time external API for contract availability at Nike.
➢ Established the API using Cookiecutter and AWS SAM CLI, ensuring a robust and scalable foundation.
➢ Defined API specifications and crafted comprehensive documentation using Swagger, enhancing transparency and ease of integration.
➢ Engineered the data access layer, orchestrating calls to the external API, processing responses, and transforming data in alignment with General Availability standards.
➢ Ensured seamless integration by designing the API to be utilized across various Nike applications.
➢ Orchestrated the deployment of the API into AWS environment and optimized the Build, Test, and Deployment (BTD) pipeline, utilizing BMX for efficient continuous integration and continuous deployment.
➢ Innovatively merged responses by developing a converter, resulting in a unified and aggregated API response.
➢ Improved efficiency and usability for applications consuming the API across Nike's ecosystem.
➢ Contributed to the development of the Locker app for athletes, empowering them to access profiles and purchase merchandise.
➢ Utilized TypeScript, JavaScript, and React, adhering to established software development standards for consistency and maintainability.

### Graduate Engineer Trainee (DevOps Team)                                                    **Experience:** 1 year

*Synopsys Inc.*

**SUMMARY**: **Underwent training to gain a deep understanding of networking fundamentals and Linux/Unix training**. **Hands on learning with various technologies such as ElasticSearch, Dash, AWS, Postman-Newman etc.**

➢ Developed and tested a python script to update the user profiles automatically from an active directory to the company's security verification DB, Okta, thus making an efficient stride to remove the manual work involved in such.
➢ Worked on Dash- integrated React and Javascript snippets in an instance of the python module, to help develop an engineering monitoring stack website to track Perfomance, Billings, Trend reports and metrics imported from elastic search.
➢ Worked with various technologies such as Kafka, Grafana, ElasticSearch etc. Also having helped integrate Elastic Search with MySQL for real-time data analysis.
➢ Developed a python script to read the info of users in a PostgreSQL database and updated the missing data to the Active Directory. Running the script at various intervals helped reduce the shortage of data.
➢ Coded a script to access and retrieve data from AWS secret Vault and set up variables in Azure App config.
➢ Generated excel reports pointing out the tickets due in each quarter along with various parameters that helped resolve up to 3500 tickets per quarter
➢ Coded testing scripts in postman to test API calls to cluster provisioning and deprovisioning service, while also generating HTML reports using Newman. Expedited the testing process by approximately 10 – 12%.

### Data Science Intern                                                    **Experience:** 3 months

*Faster Infra*

➢ Tasked with the client-based communications due to high proficiency in soft skills.
➢ Was highly active in the visualization, cleaning and preprocessing of data using scikit and pandas.
➢ Part of the team that was responsible for planning and setting up an efficient database using SQL.
➢ Developed an AI chatbot to answer business questions using nltk, tensorflow, numpy etc. that significantly increased the support experience of customers by a drastic 54%
➢ Assisted by performing thorough testing and validation of models and support various aspects of the business with data analytics

### Software Engineering Intern                                                    **Experience:** 3 months

*Veegam Software*

● **Front-End UIs:**
  ▪ Worked in developing the backend, for the existing website, and in developing the databases, worked closely for the front-end development using CSS and Javascript.
➢ Observed and learnt Text-Voice/Voice-text conversion using AWS service.
  ➢ Worked on minor projects using Java and Python with a team.

➢ Planned the logical approach for client website building and also debugged code of senior programmers

## PROJECT EXPERIENCE

**Cryptocurrency exchange simulation using blockchain technology(React, Node, JS, GUN)**
- Used GUN in Node.js to build decentralized application and thus maintaining peer to peer network communication without needing an intermediary. Excess flood of messages were held back using GUN's Daisy Chain Ad Hoc Mesh Network.
- Developed an easy to use simulation website to demonstrate the basic working of cryptocurrencies in decentralized network where users will be able to act as peers and be able to join the network, obtain their public keys and perform transactions.
- Made a dummy coin that can be mined by finding the correct nonce and can be validated by the users. The crypto currency can be exchanged manually by selecting UTXOs or via a wallet method.

**Transfer Learning for NLP with TensorFlow Hub**
- Used various pre-trained NLP text embedding models from TensorFlow Hub
- Performed transfer learning to fine-tune models on text data.
- Visualized model performance metrics with TensorBoard

**Titanic - Machine Learning from Disaster**
- Used machine learning to create a neural network model that predicts which passengers survived the Titanic shipwreck with 96 percent accuracy.
- Used Tensorflow, keras, pandas, scikit tools to build the model, clean and preprocess the data. (The data was taken from Kaggle.)

**Virtual Assistant in Python**
- Made a virtual assistant in python using speech recognition, pyttsx3 including features such as playing a song, citing jokes, text on WhatsApp, search queries, automate job applications etc.
- Using beautiful soup and selenium, it scrapes the job portal to find and apply to jobs. And can save jobs upon request in a text file.
- Can show the status of the system. With the help of pygame, google translate and Wikipedia, it can play a game, translate from one language to another or even fetch information about a certain topic.

## EDUCATION

**Jawaharlal Nehru Technological University of Hyderabad**

Hyderabad, Telangana

**GPA**: 3/4     **Field**: Computer Science

**Technical Skills**: C++, Python, HTML, React, Flask, Numpy, Javascript, Java, CSS, Dash, MongoDB, SQL.

**Coursework**: Data Structures and Algorithms, Computer Networks, Operating Systems, Big Data Analytics, Information Security, Computer Organization and Architecture, Database Management System

## EXTRA CURRICULAR
- Head of operations at E-cell JNTUHCEH, promoting and engaging with startups, business leaders directly.
- Volunteer at Blue Cross, Hyderabad- vaccinated and rescued stray animals while leading the community drive to reduce animal killings
- Runner up in zonal basketball competition.