

# THOUSEEF SYED

Sr. Applications Developer

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## SUMMARY

Highly motivated and technically skilled professional Applications/Chatbot/Bot Developer with over 5 years of experience providing high-level support to stakeholders. Proficient in designing, programming, researching, analyzing, pattern recognition coupled with innovative thinking to solve real world problems using Artificial Intelligence (AI) and Machine Learning (ML). Experienced in Conversational AI using NLP/NLG tools, Generative AI and known ML frameworks, hence looking to find positions in AI/ML development. Possess exceptional communication and interpersonal skills with a proven ability to work independently and as part of a team, contributing to company's goal and vision.

## EDUCATION

### Masters of Science | The University of Texas at Dallas

Applied Cognition & Neuroscience, specialized in Computational modeling and Artificial Intelligence (AI) & Machine Learning (ML)  
May 2020

### Bachelors of Science | PES Institute of Technology

Electronics & Communication Engineering  
August 2017

## SKILLS

- Language:** Python, Javascript, C++, R Programming, Verilog, Matlab
- Tools:** Tensorflow, Dialogflow, UiPath, Kubernetes, PyTorch, Rstudio, NLTK, Spacy, Scikit, Slack Bolt, git, LLMs, Hugging Face, Transformers, OpenCV, JIRA, FastAPI, Firebase, SQL, Numpy, Panda, Keras, Caffe, Matplotlib
- Platforms:** Google Cloud Platform, AWS
- Environments:** MacOS, Linux and Windows
- Repository Management:** Github, Bitbucket, Google Colab
- Other:** DevOps, Agile Methodology and Kanban

## CERTIFICATIONS

- Certified in Google Assistant Development with Actions on Google
- Certified in Computer Vision: OpenCV, SSD & GANs
- Certified in AI & Deep Learning using Tensorflow
- Certified in AWS ML Foundations
- Certified in Generative AI with Large Language Models
- Certified in Machine Learning with Python
- Certified in Python Development
- Certified in UiPath Foundation to Advanced Level

## PROFESSIONAL EXPERIENCE

### Sr. Applications Developer

CrowdStrike Inc., | Jan 2023 - March 2024

- Created a cutting edge Integration Bot that connects ServiceNow and Slack to accelerate ticket management system using JavaScript & Python.
- Smart features like creation of incidents, fetching approvals, fetching incidents was achieved to mediate the incoming traffic of tickets.
- Configured and integrated 100 plus API calls between Slack and ServiceNow for 8000 users of the Company.
- Designed and deployed unique integrations at enterprise level that improved Slack functionalities and enhanced the productivity by 75% using AWS EC2 instance in Bot's architecture.
- Developed up to 3 Bots that improved interoperability between CrowdStrike systems and maximize business workflows using generative AI and LLMs.

### Bot Developer

Brixton Group Inc. (Client: Verizon Communications). | Dec 2020 - Dec 2022

- Developed Chatbot proof of concepts that helped to solve up to 5 business related queries using Dialogflow.
- Created Bots to automate form recognition using AI/ML algorithms that cut down the manual process by 60%.
- Designed up to 3 Bots that use NLP & NLG, which aided the tech support team by increasing the productivity by 50%.
- Monitored and supervised a supply chain bot that generated revenue up to \$12 million dollars.

### Machine Learning Researcher & AI/ML Lead

The University of Texas at Dallas | January 2019 - December 2020

- Lead a team to create a virtual interactive lab assistant exclusively for the ArtScilab.
- Established a network of over 20 users within the framework of the lab.
- Created a knowledge base of over 100 FAQs & hence shortened the onboarding process by 30%.
- Created a front-end Django based Dialogflow application using Google Cloud Platform.
- Received Approval by Google for Beta Testing the virtual assistant.

### Research Assistant

PES Institute of Technology | July 2016 - March 2018

- Analyzed data sets of 10 years and developed a model that would aid Fund managers to maximize returns.
- Performed prediction for 3 months of Net Asset Value of Mutual Funds using Support vector Machine models
- Developed and deployed SVM based machine learning models for prediction and validation.
- Achieved 99.82% accuracy towards forecasting the model and published in the [IEEE journal](#)

## ACADEMIC PROJECT AND RESEARCH PUBLICATIONS

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### Chatbot using Llama 2 7B LLM : [Notebook](#) | November 2023

- A simple comparison between Basic and Advanced Chatbot was performed using the Llama 2 7B Large Language Model (LLM)
- Loaded the model and tokenizer by setting up the environment with Hugging Face transformers, PyTorch and accelerators
- Generated responses by creating the Llama pipeline and used Gradio Chat Interface for a robust communication between the user and the chatbot

### Mutual Fund NAV Prediction using cascaded SVM models | July 2017– March 2018

- Successfully created and analyzed Mutual Funds Dataset for the 10 fiscal years
- Evaluated prediction of Net Asset Value using Support Vector Machine models for the financial dataset
- Achieved 99.82% accuracy towards forecasting the model and published in the [IEEE journal](#)

### BESSO : Virtual Interactive Lab Assistant | January 2019 – May 2020

- Designed and developed the architecture of the virtual assistant with 40 plus intents and entities.
- Created a seamless conversation experience across all platforms like telephone, website and application.
- Enabled natural and rich interactions of over 20 plus users and the assistant through analytics NLP and NLU.
- Established a knowledge base of over 100 FAQs and shortened the on boarding process by 30%.

### Traffic Sign Classification using CLAHE : [A Deep Learning Approach](#) | January 2020 – May 2020

- Performed Classification of Traffic signs using CLAHE to detect signs in challenging conditions.
- Secured 95% accuracy post training and tested on other frequent traffic signs

### Social Distance Detection using Single Shot Detection Models : [Project](#) | August 2020 – August 2020

- Implemented a model to perform Social Detection using SSD models to enhance the end to end accuracy
- Obtained better coverage on location, scale and aspect ratio, by lowering the input resolution to 300\*300

### Speaker Recognition on Apollo 11 Corpus : [A Study using different Machine Learning Models](#) | Aug 2019– Dec 2019

- Performed Speaker ID on 183 speakers using KNN, CNN and i-vectors
- Achieved 85% Top-5 accuracy using CNN when compared to other models

### Multivariate Analysis on Driving Style in R : [Book Report](#) | Aug 2019– Dec 2019

- Implemented multivariate analysis on driving style, using statistical methods like PCA,MCA,MFA,DiCA,etc
- Arriving at significant factors that impact one's driving style, with the methods mentioned above.

### COVID-19 Chatbot : [Dr. Pandemic](#) | June 2020–Aug 2020

- Successfully designed and deployed a COVID-19 rapid response chatbot using NLP and NLU
- Optimized narrowed and localized search using Big Query and Google Maps API.