

Aravind Kota

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- Proven experience in working AI based applications including computer vision, NLP and LLM based products and services.
- Experience on using LLMs, vector DBs such as Chroma DB and Transformer architectures such as BERT, Encoder-Decoder, Autoencoders.
- Hands-on experience in building and consuming REST API's using Flask, fastapi, docker and ECR.
- Hands-on experience in Agile Development Process and documentation using JIRA and Confluence.
- Good knowledge on various version control system such as GIT.
- Experience with common data science toolkits such as NumPy, Pandas, Matplotlib, Scikit learn and deep learning frameworks such as TensorFlow, Pytorch, Detectron2 for building image processing and text processing applications.

Skills

Python	<div><div></div></div>	Excellent
Pandas, NumPy, Pytorch, Tensorflow	<div><div></div></div>	Very Good
Computer Vision, Object Detection	<div><div></div></div>	Good
Natural Language Processing, chatbot, text processing	<div><div></div></div>	Good
Flask, FastAPI, Uvicorn	<div><div></div></div>	Good
LLM, Transformers, BERT, Vector DB	<div><div></div></div>	Good
AWS Textract, Sagemaker, S3 Bucket, ECS, ECR	<div><div></div></div>	Good
Linux, Windows	<div><div></div></div>	Good
SQL, MonogDB, DevOps, Docker, Git	<div><div></div></div>	Average

Work Experience

September 2021 -
Current

Technical Lead – Data Science Specialist

HCL Technologies - Bangalore, India

Project 1: IW Analyze – Automatic Defect Recognition - Baker Hughes, Bangalore.

- A software platform which will let users to train on defect dataset and infer for defects in the image.
- Developed an Auto ML and No code platform intended for users from different industries and background and lets them use the tool for performing deep learning activities.
- Technology Stack: Python 3, Pytorch, Detectron2, fastAPI, Object Detection

Responsibilities:

- Developing python scripts for model training, inference and management tool for model and data.
- Integrating the backend code with frontend framework to enable easy and swift selection between various modules.
- Building pipeline for data acquisition, image filtering, model selection, inference procedure and model training.
- Worked on different image handling and 3d object detection
- Leading the team in product development and handle client requirements.

June 2020 – August
2021

NLP – Sr Software Engineer

Legato Health Care - Hyderabad, India

Project 1: Symphony Intelligent Data Extraction

- Technology Stack: Python 3, Fonduer, AWS Textract, docker, Machine learning classification, flask, OCR.
- Symphony is a data extraction engine for documents of different formats (pdf, excel, word). It extracts key value pairs for form type and text type documents.

Responsibilities:

- Developing python scripts for data extraction, Writing Restful API's
- Training classification models for classifying document types and data types.
- Used AWS Textract for text extraction from documents.
- Worked on docker based deployment in different environments.

Project 2: A-15 Post Natal Care Assistant

- Technology Stack: Python 3, Rasa, docker, Machine learning classification, flask, Elasticsearch
- A-15 PNC Assistant is a chatbot based smart assistant for monitoring and providing critical information for new mothers and newborn babies.

Responsibilities:

- Developed chatbot based on rasa framework for different modules.
- Worked on Few shot learning algorithms and Elasticsearch for providing FAQ based question and answers.

**December 2018 –
June 2020**

Data Scientist

V-Soft Consulting Pvt Ltd - Hyderabad, India

Project 1: Scan to Cook for smart cooking appliances

- Technology Stack: Python 3, AWS Sagemaker, Docker, Text classification, MongoDB
- Scan to cook is an interface web service developed to implement smart capabilities in cooking devices.

Responsibilities:

- Developed a deep learning model for recipe text classification
- Implemented NER, sentence classification, and tokenizer for recipe text
- Developed a logic for JSON formatter using python
- Involved in deploying the model in AWS environment using ECS and Git.

Project 2: VERA Enterprise level Chatbot

Technology Stack: Python 3, Flask, Elasticsearch, Rasa, docker

Build an enterprise level chatbot to automate tasks within the organization, and develop a database search engine module to implement FAQs for employees.

Responsibilities:

- Implement expense tracker module using OCR, OpenCV and image classification.
- Build a knowledge base for enabling FAQ feature using Elasticsearch and Nero4j.
- Involved in data acquisition and data generation for expense tracker and FAQ building
- Implemented backend similarity matching to optimize the search engine.

**January 2018 –
November 2018**

Associate Software Developer

Unify Technologies Pvt Ltd

Title: ECG Analyzer and Disease Prediction

Technology Stack: Python, OpenCV, MATLAB, Machine Learning

This application is to read and analyze ECG reports for understanding the signal and predict the heart condition based on the report.

- Developed a portal-based application which analyzes ECG reports and convert image-based documents to digital forms using OCR and OpenCV modules.
- Developed a CNN module to classify the report images and perform template cropping of the image into individual leads.

Title: Image Similarity and Registration Using RANSAC

Technology Stack: Python, MATLAB, OpenCV,

- Finding similarity between satellite captured images and UAV captured images to identify common points for surveillance.
- Used MATLAB and python to provide registration feature using OpenCV and CNN based architecture

**October 2016 –
January 2018**

Junior Vision Developer

Optomech Engineers Pvt Ltd

Title: Object inspection module for Pharmaceutical and Manufacturing Industries

Technology Stack: Python, OpenCV, MATLAB, LabVIEW, NI Multisim

A software interface to inspect and analyze the quality of the object manufactured.

- Developed interface module between analytics board and cameras, sensors, motors, and air pumps to on the line object inspection.

Worked on building inspection modules using NI LabVIEW, NI multisim and vision assistant for various image processing features like edge detection, color analysis, bar code identification and OCR.

Education

**August 2010 – June
2014**

Bachelor of Technology in Electrical & Electronics Engineering

KL University, Vijayawada – India

**November 2014 –
October 2016**

Master of Technology in Power Electronics

Kakatiya Institute of Technology & Sciences – Warangal India

Personal

Date of Birth

03rd May 1993

Citizenship

India

Languages

English, Hindi, Telugu

Hobbies

Reading books, blogging, travelling, listening to music, playing badminton and cricket.