Abhijith M

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Professional Summary

- 3.5 years of IT experience (joined in 02-07-2019) in Artificial Intelligence (AI), Research and Development, Coding and Client Support.
- An analytical senior level software developer in AI.
- Experience in the area of the following
    - Natural Language Processing
    - Reinforcement Learning
    - Data Analysis and Mining
    - Deep Learning
    - Computer Vision
    - Machine Learning
    - Python – Django Frame work and Restful API
    - Python desktop app development with TKInter
- Skilled in Requirement analysis and project documentation.

AREA OF EXPOSURE

- Now I give coding support to a teacher on College of Engineering Chengannur who is doing PHD on computer vision. The project is related to image segmentation for finding polyp in intestine. One conference and 2 IEEE paper are published now. Know more
- Research and development works on Computer Vision, Natural Language Processing, Data Science
- Object oriented design and development with Python Django Framework and Restful API creation
- Client-side technologies like Java script, JQuery, HTML5 and CSS3
- Experience in handling large database in Django MVD and Mongo DB.
- Participated in most of software development life cycle like analysis, design, coding, debugging, implementation, integration.

EMPLOYMENT HISTORY

Period	Appointment / Organisation	Responsibilities
2019- till now	Zerone Consulting Pvt Ltd	Artificial Intelligence Research and Development, Planning and Defining Scope , Activity Planning and Sequencing, Developing Schedules, Time Estimating, Cost Estimating, Risk Analysis, Managing Risks and Issues, Monitoring and Reporting Progress, Team Leadership, Working with Vendors, Scalability, Interoperability and Portability Analysis, Controlling Quality, Benefits Realization.

PROJECTS WORK ON

Face Analytics (Face Recognition, Emotion Analysis)

Face Analytics is a computer vision based AI project used to analyze face matching emotion of people, face verification and matching and so on. This project has various applications in real world like monitoring status of interview based on interviewees emotion. Attendance management system, Health monitoring in hospitals. CCTV surveillance. Crime analysis. Find similar people …
Technologies: Deep learning, Computer vision.
Libraries/Tools: Opencv, Yolo, Tensorflow, Keras, Django, Python, Rest API.
Algorithm: Inception V3 with pretrained model

Object Detection (Human Detection)

This is a computer-vision based project for detecting various objects like human, animals, vehicles, and other objects. This project is mainly focused on CCTV surveillance. Advanced level surveillance based on AI. This software give real-time surveillance report on detecting any anomalies. Eg: detecting theif, detecting animals, monitor vehicles …

Technologies: Deep learning, Computer vision.
Libraries/Tools: Opencv, Yolo, Tensorflow, Keras, Django, Python, Rest API
Algorithm: Yolo Darknet with pretrained model

Object Tracking (Human Tracking)

This project we had done different kind of analysis on human tracking. For example how much time the employee spending on cafeteria, who is the most common person to interact more. How often he/she visiting the area and so on.

Technologies: Deep learning, Computer vision.
Libraries/Tools: Opencv, Yolo, Tensorflow, Keras, Django, Python, Rest API
Algorithm: Yolo Darknet with pretrained model

CodeSign

This is a web and desktop based application. This is a cryptography application for digitally signing of documents.

Technologies: Cryptography

Libraries/Tools: Endosive, Django, Tk-inter
Algorithm: DSA, SHA1

Invoice Recognition

Invoice recognition is used to convert invoice in image format to json data. The json data is stored in database. If we give an image of invoice. This software collect all required information in the invoice like name, date, purchasing item details, price, email, phone number… and this information is stored in database for further analysis. We can custom train new invoice based on our own template. Client side is made in MERN and backend is on python Django.

Technologies: Deep learning, Computer vision, Natural Language processing
Libraries/Tools: Opencv, Tensorflow, Keras, nltk, tesseract, Django.
Algorithm: Fast-RCNN-Inception-Resnet

Resume Analyser

This software helps Human Resource management to easily analyze resumes of applicants. Advance level search engine and data mining technologies are used to rank resumes based on search. We can re-rank resumes based on custom tagging. For example, if a resume is appeared on search which is not relevant to our search, then we have an option to tag this resume is not relevance this scope. So, this helps to get correct results based on resume search. And this software automatically collect data while uploading resumes and store it in database.

Technologies: Deep learning, Computer vision, Natural Language processing, Data mining
Libraries/Tools: Opencv, Tensorflow, Keras, nltk, spacy, tesseract, sklearn, Django.
Algorithm: Psudo-relavance-feedback-engine, Inverted Index, Named entity Recognition …

Chat Bot

Chat bot is a personal assistant. This chat bot is trained for give assistance for employees to handle various enquires on leave taking, task management etc. This is an interactive learning based bot and we can train our own stories.

Technologies: Deep learning, Natural Language processing, Data mining
Libraries/Tools: Tensorflow, Keras, nltk, spacy, tesseract, sklearn, Django.
Algorithm: Named entity Recognition, word2vec, svm, random forest, LSTM…

Rule Based PDF Mining

This project is for converting unstructured data in Medical Research papers to structures data. The frond end is developed on a desktop app build on python with the help of tkinter module. An interactive frond end is provided for handling deferent rule based mining of data mainly we focused on regular expression based mining as well some deeplearning approach for finding named entity calculation.

Technologies: Deep learning, Natural Language processing, Data mining
Libraries/Tools: Tkinter, nltk, spacy, PyMuPDF, PDFMiner, re
Algorithm: Named entity Recognition, Custom rules

Article Analyser

This is a demo project containing all major applications of NLP. The main features of this project are listed below.

- ***Named entity recognition*** *(Identify entities such as person's name, Organization Name, Medicine name, Date, Currency, Place, Phone Number …)*
- ***Article Similarity*** *– Find similar article based on an article (Find similar review based on a review of a person. This helps to find similar persons based on review in a social media or other applications)*
- ***Article summarizer*** *– This give a short summary of an article (If we have a large article, it is difficult to grasp core idea. Article summarizer create a snippet or short summary of document that contain core idea of document)*
- ***Sentiment Analysis*** *– Sentiment of passage if it is positive negative or neutral. (Sentiment of a review of product or article). Eg: review: This is a good product and highly recemented. (Positive sentiment)*

Technologies: Deep learning, Computer vision, Natural Language processing, Data mining
Libraries/Tools: Opencv, Tensorflow, Torch, Keras, nltk, tesseract, Django.
Algorithm: Named entity Recognition, Doc2Vec, LSTM

Event Management System using RL

In this project, we created a RL system for analyzing market and give recommendation to the event management team.
Technologies: Reinforcement Learning, Deep Learning, Natural Language processing, Data mining
Libraries/Tools: Ray, Tensorflow, Keras, nltk, tesseract, Django.

EXPERIENCE AND PROFICIENCY

Skill Set	Level of Proficiency (Advanced/Intermediate/Basic)	Years of experience
Python	Advanced	4
Django And Rest API	Advanced	3.5
Computer Vision	Advanced	3
Natural Language Processing	Advanced	3
Machine Learning	Intermediate	3
Reinforcement Learning	Intermediate	0.5
Deep Learning	Intermediate	3
Web Development	Intermediate	4
Android App development	Intermediate	2
Robotics and embedded system	Basic	1

EDUCATION / PROFESSIONAL QUALIFICATIONS / CERTIFICATIONS

Period	Discipline	University (Name and Country)/Certifications	Score/CGPA
2015-2019	Bachelor of Technology	APJ Abdul Kalam TechnologicalUniversity(KTU), Kerala, India	7.1 CGPA

2013-2015	Computer Science	Central Board of Secondary Education, India	80%
2013-2014	SSLC (10^{th})	Kerala State Board	96%

Extra Curriculum activities

- CTO of IEDC cell in VISAT engineering college, 2015-2021
- Conducted workshops & training programs in engineering college on technologies mentioned below.
    - Artificial intelligence
    - Android app development

PERSONAL DETAILS

Date of Birth	:	16-06-1997
Nationality	:	Indian
Gender	:	Male
Languages Known	:	English, Malayalam