ARPAN GHOSH

Software Developer with a total IT experience of 10 months. Possess Master's degree in Electronics and Tele-Communication engineering. Looking forward to learn and work on latest technologies.

PROFESSIONAL EXPERIENCE

PriceWaterhouseCoopers Pvt. Ltd. India,
Technology Consultant, August 2018 – Present

Project: Barcode detection and scan data from image	
Requirements	The client needed a smart application such that • Client upload barcode images; where an image can contain multiple stickers. • Solution System can recognize the barcodes zone and scan the Barcode data and send to the frontend
Role	Developed multiple OCR systems using Tesseract, Google Cloud Vision API and custom OCR engine. Applied various image correction methods for optimal text recognition and barcode detection from complex images. Implemented text extraction from scanned-pdf using various OCR techniques. Was actively involved in designing solution architecture for the application. Did coding of the entire image pre-processing module using Python independently. Worked on troubleshooting and deployment of codebase. Implemented advanced image processing algorithms from research papers to extract, identify and recognize digits from electricity meter with high accuracy.
Tools & Technology Used	Python, OpenCV, Numpy, Flask, Tesseract, Google Cloud Vision API
Project: Document Processing Tool	
Requirements	This is a In house Project such that : • Whenever any Invoice pdf is uploaded in the tool, it will automatically identified which Vendor category Invoice is that. • Based on that, Solution system will identified certain key field like Invoice no, Date of purchase, Buyer name, GSTN no, etc. • Extract Data from those key filed Return as Json

Role	• Convert the Pdf into Images and using Machine learning Algorithm identified which page is invoice. Then Developed another Model to classify the vendor category .Create Template for different group of Vendors. After identification Vendor category of incoming invoice, based on that relevant template is apply and crop the key fields area and extracted the data send as Json
Tools & Technology Used	Python, Tesseract,SVM,Opencv, Flask

Project: Smart IT Ticket Management Tool	
Requirements	This is a In house Project such that: • To solve a problem like most of the incident ticket or service ticket is not routed to right service team. By the time it will reach to the proper team ticket issue create lot higher level trouble • Solution system is aim to integrate with Service Now Chabot. In such way that whenever any user communicate with virtual bot regarding their issue based on their conversation relevant Ticket category is raised and route to the proper team.
Role	• Pulled the dataset directly from random service now using kaggle and tried to classify them using Machine learning techniques to make a labelled dataset. We just kept the description and categories from the ticket and went ahead with analytics on it to come up with top 5 categories for incidents. • **First**, using NLTK'S WordNet to find meaning of the word, synonyms, and antonyms and use WordNetLemmatizer to get the root word. • ML algorithm through which our model is able to deal with text classification Text classification • A model which is trained on the historical dataset which can perform label predictions.
Tools & Technology Used	Python, Pandas,NLTK,Sklearn,CNN,Flask,Postman,Tensorflow

Project: Utilization Management System	
Requirements	This is a In house Project such that: • This system solve our company previous problem when every month utilization of every employee, competency maintain manually by excel sheet. This tool automate the whole process by communicate directly with database.
Role	Developed Web service to maintain YTD Table, new joiner list, left joiner details using precision data from HR team.
Tools & Technology Used	Python, Flask, Pandas, Microsoft SQL Server

EDUCATION:

Degree	Institute/University	Subject	Marks(%percentage and CGPA)	Grade	Duration
Master of Technology	National Institute of Technology,Arunachal Pradesh	Mobile Communication and computing	7.9/10	1nd class	2016-2018
Master of Science	*REPE, CU, kolkata700131*	Electronics and communication	72.5%	1st class	2013-2015
Bachelor of Science	*Acharya Prafulla Chandra College, WBSU, NewBarrackpore, kolkata700131*	Electronics Science	51.13%	2st class	2010-13
Class –XII	**WBCHSE**	Math, Physics, Chemistry Biology	63.34	1st div	2010
Class –X	**WBBSE**	English,Bengali,physical science, Life science, History ,Geography	69.71	1st div	2008

ACADEMIC PROJECTS and Achievements

- In M.tech program: BIBD combinatorial based key Management for wireless sensor Network security at NIT Arunachal Pradesh
- M.sc: Nano silicon tube based solar detector using Porous silicon at IIEST,Shibpur
- B.sc: Arduino based robotic arm 360 degree movement feature.
- Stood Topper of the batch in M.Sc. and Awarded with shri Aurobindo Gold medal for Academic excellence.
- A Conference paper on Nano optical fiber published in ACME 2016 in IIT Bhubaneswar
- "BIBD based Key management" a journal paper on Network security published in Springer 2018

SKILLS

- **Language:** Python, Node js, MATLAB
- **Database:** MySQL, Microsoft SQL Server
- HTML, CSS
- REST framework: Flask
- **Project Management Tool:** GitHub, SVN
- Basics Machine learning

Personal Aspiration:

- Machine learning
- Deep learning

PERSONAL DETAILS

- **Name:** Arpan Ghosh
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