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Objective:

Autodidact, Thinker, Open Source advocator, Start-up evangelist, Polyglot Programmer, Unix lover, Quick Learner.Seeking a challenging opportunity in the field of software for – machine learning and artificial intelligence, data science,building product from scratch, architechture and designing or research with a leadership position.

Summary:

- Expertise in Machine Learning and Artificial Intelligence with special focus on Deep Learning, Computer Vision and Image Processing , NLP and NLU and Data Science building end to end solutions including ML models and classifiers and leveraging pre-trained models and image processing.
- Leveraging cloud based machine learning solutions, builidng NLP based chatbots healthcare, developing multiple machine learning models from groud up.Applying machine learning and artificial intelligence to healthcarre and supply chain.
- Expertise in designing, developing and architechting Cloud based enterprise SaaS (RESTful webservices) and IaaS applications for B2B and B2C with view of scale leveraging cloud services AWS, GCP and Azure.
- Experience in hiring, building and leading teams of different sizes at multiple occasions (Max team size 40) also worked as individual contributor.
- Worked in early to mid stage startups and tech gaints playing different roles across the board from technical development to mentorship and building products, doing successful POCs and production releases.
- Domain knowledge of Networking , AI in Healthcare, NLP/NLU, Deep Learning and Computer Vision, Security, Retail - eCommerce logistics, Supply Chain Management System Design, Technology. Cloud - (Openstack Rackspace, GCP, AWS, Azure) , Databases - SQL and NoSQL, Micro-services, Web-Services (RESTful), Scalable and Distributed and low latency and high througput. Systems.
- Exposure of hands on working on Micro-services, large scale distributed systems having low latency and high throughput with programming in Python/iPython and it's frameworks(Django, flask, bottle) , Java and Spring boot (2.0) and basics of Nodejs, database SQL/NoSQL.
- Basic understanding of Marketing, Sales and Pre-sales.

Work on Artificial Intelligence / Machine Learning:

Image Captioning, Building a tool for pre-processing of large amount of text data,Image processing,GANs , NST (Neural Style Transfer). Near Real Time Faulty wheel detection with CNN classifier.(IEEE paper https://ieeexplore.ieee.org/document/8006280). Buidling MLpipeline of 2.5 TB data.Keras based Deep Learning Sequential model for binary classification for RWS Sentosa fun park,Singapore based organistaion to detect faulty wheel.Building inference engine for allowing prediction at scale. applying techniques such as denoise, deskew.AI in healtcare building healthcare chatbot, Biomedical image analysis. Image processing using OpenCV to generate overlay image and exposing the APIs for use on any image.

Face eye and object detection using haar cascade frontal face classifier.Used tensorflow high level APIs using keras to build classifiers.One-shot Learning, Learning with unbalanced data.Designing the architechture of deep and shallow neural network with convolution, max pooling and dropoutlayers and doing optimization on that.Learning with pre-trained models such as Oxford's VGG16 and VGG19, MNIST, IMAGENET,RES-NET. and using them for online ML inferance.supervised, unsupervised learning.Running models on GPU, CPU and Floydhub etc.- Optical Character Recognition and Intelligent Character Recognition with open-source library tesseract which has engine having LSTM support for printed text extraction and hand written character recognition with pre and post processing layer.Used Cognitive Services to build recommendation engine which works on Camera image Caputred and gives product recommendation based on Gender, Age, and Wearables and Objects detected in the image.Also a recommendation engine based on collaborative filtering and other techniques.Model evaluation is a work in progress (bais, variance, precision, recall and F1 score, ROC and AUC). Deciding on overfit and underfit of deep learning model , hyperparameter tuning for DNNs. Offline AMS (Attendance Management System) to register and recognise face of registered users using OpenFace.Developing intent classifier, text preprocessor, named entity recogniser etc and leveraging AWS Lex and Microsoft LUIS for conversational app for organisations.Utterance management system and using data visualization tools for plotting utterances, frequency distribution of words, custom algorithms for building NLP based conversational bots.

Big Data and visualization tools– Handling large scale data and migrating from onprem to cloud to do Cloud Machine learning on data. Also worked on data acquisition, extraction, transformation,preprocessing exploring data , data modelling, data cleaning and wrangling etc.Time series data.

Good understanding of data structures and algorithm, agile, SDLC , high available and fault tolerant systems.Polygot programmer, flexible and versatile, team player with extensive experience in wide variety of technologies.

Research : Quantum AI : Involved in initial level of research in spintronic which is the study of the intrinsic spin of the electron and its associated magnetic moment,.Also keen to get into Cancer Daignosis and the usage of AI in Radiology, Pathology, oncology and other clinical areas.

Medlife.com SDE III (11th Feb 2019 – Current)

- Distributed Caching layer for the product, write-through and read-through and read-aside cache with cache synchronization and eviction policies.

- Working on different monoliths services to decoupled microservices.Developed Pill Reminder Micro-Service from scratch.Myra Integration.

- eCommerce logistics and supply chain management.Worked on a Microservice for authentication and authorization for access control for all apps.

Rackspace - Public Cloud Dev [Cloud Networking - Senior Software Engineer 30th March'17 – 7th sept'18]- (1.7 years)**:** Rackspace was the client for Accion Labs, where Rackspace has setup its own public cloud develoment center and center of excellence.

Open source contributions at Rackspace: 1. Quark - https://review.openstack.org/#/c/527913/ 2. nova - https://review.openstack.org/#/c/563418/

3. Wafflehaus.neutron -https://github.com/roaet/wafflehaus.neutron/commit/01f6d69ae759ec2f24f2f7cf9dcfa4a4734f7e1c

4. Wafflehaus - https://github.com/roaet/wafflehaus/commit/eb9a7381623c4829453bcbb4d1bd078ecf236056

Happay – Expense Management Solution for Business [Software Engineer Dec 2015- March 2017] Early Stage Start-up – (1.6 Years)

End to end ownership of the version 2 of the product. Happay is a card processing payment platform. It does the expense management for card transactions and is a B2B solution. Worked on pricing and invoicing module, Loyalty Engine looking after Notification service, Wallet and Card app, Policy application, coding async apis and tasks, benchmarking different solutions and scaling out to allow more customer on boarding. Building

Intel Security (McAfee) [Software Engineer Feb 2013 –November 2015 build tools] – (3 years)

1.Prometheus Server (April 2015- November 2015): A facility which enables submitting samples for analysis of threat in real time.

2. REST Server (Nov 2014– to March 2015): Serves reputation scores over a restful web service. The reputation score decides if the file is malicious.

3. Streaming Updates and Cloud Server (January 2013 – September 2014): Distributed and data agnostic system of Connectors, Data store and Nginx. It normalizes data, aims at fetching data from different sources and producing streams of reputation for clients and services (SaaS).

4. Mobile Cloud 2.0 Android Anti-Virus (Feb 11, '13 – Aug '13): Classifies APKs as malicious or clean from various android app stores.

TCS[Dec 2012-Feb 2013] Associate Software Developer Trainee, PowerUpCloud [2018 sep-Jan2019) -Sr Architect AI/ML

AI/Machine Learning	Multiple Opensource librariess -Keras, PyTorch, Tensorflow, OpenCV, Kaggle, Floydhub, Google Collab, OpenFace, SciKit-learn, Tesseract, Spacy, nltk, Preprocessing data, Lemattization , Stemming, Data Cleaning, Stopwords removal, Special characters removal,budiling training and inference NLP models. Supervised Deep Learning, Artificial Neural Network (ANN), Jupyter Notebook, 1. Salary prediction based on experience. 2.Developed applications to find out reason for customer churn 2. Finding user transaction pattern using K-Means clustering 3. Working on applying NSL_DSS and other data set for an solving intrusion detection problem. 4. Multiple projects Conversational AI with Context Management and NLP/ NLU layer.
Programing Languages	Python(6.5+ years) with Django, Flask, Bottle, Anaconda distribution , Java and Spring Boot 2.0 (1+yrs) with Maven Dependency Management ,NodeJs(basics).
VCS and code review	Git, Bit bucket, Gitlab, Launchpad, Gerrit review system, code collaborator, SVN.
Computer Networking	Intent-based (basics), network aware applications, Router, Switches, VLAN, SDN, data plane, control plane, TCP, HTTP, UDP ,Shared IP, subnet , networks, ports ,VLAN, interfaces etc.
Operating Systems & IDE	IDEs-Eclipse, PyCharm, VSCode, Spyder, Jupyter Notebook, Sublime, Vim OS: Ubuntu 14.04, 12.04, Centos, Mac.
Cloud Services	AWS (Rekognition, RDS, SQS, EC2, S3, SNS, Cloud Watch,Lambda, API Gateway etc), GCP (CloudML, compute engine, CloudSQL ,Cloud Function (for online prediction), Pub/Sub, BigQuery, Notification Services – Twilio and Sendgrid, Azure(instances, vision, luis)
Databases/Cache	Cache – Redis. SQL - PostgreSQL, MySQL.(master-slave, replication and connection pooling for PostgreSQL), NoSQL – Hbase, MongoDb ,Recently started using GraphDb (Neo4J)
Queueing Mechanism , Others	SQS, Kafka, RabbitMQ, Celery, Docker , Slack, Zoom , Jira, Kafka, Hadoop (basics), oops concept, Version One, Bugzilla, Nose Framework, Shell Scripting, web crawling, Jenkins, Apache, Nginx.

Training:

- MOOC Freak -Multiple courses (More than 20) on different subjects on udacity.com, udemy.com and many others.
- Crucial Conversations: training and certification by Vital Smarts.Big Data and Hadoop Development: 3 months

Education:

Degree	College	Course	% Score
B.Tech.	Cochin University of Science and Technology[2008 -2012]	BTech, Information Technology	72%
12th	Mount Assisi School, Bhagalpur, Bihar [2007]	ICSE board	76 %
10th	Mount Assisi School, Bhagalpur, Bihar [2005]	ICSE board	88 %