AKASH ASHOK
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EDUCATION

University of North Carolina, Charlotte   August 2017 - December 2018
Master of Science in Computer Science   *Graduated with GPA 3.4/4.0*
Courses: Machine learning, Artificial Intelligence, Cloud Computing, Algorithms and Data structures, Big Data, Mobile Application Development

Visvesvaraya Technological University, Bangalore, India   August 2011 - June 2015
Bachelor of Engineering in Computer Science   *Graduated with GPA 3.6/4.0*

TECHNICAL SKILLS

- **Languages**: Java, Python, Javascript, C, C++
- **Machine Learning:** CNN, Keras, Tensorflow, Regression, Classification, Clustering, Anomaly Detection
- **Web Technologies:** Node, Angular, React, Spring MVC, HTML, CSS, JQuery, XML, Bootstrap, Express js, Passport js
- **Cloud Technologies:** Hadoop, Spark, Kafka, ElasticSearch , AWS,
- **Tools**: Git, Eclipse, HortonWorks, Android Studio, Firebase, Tomcat
- **Others**: REST, Hibernate, CRUD, MySQL, AOP, Maven, Spring Boot, Docker, MongoDB, Heroku, Mongoose, Jenkins, Android

EXPERIENCE

Informative Technologies, Charlotte, North Carolina   March 2019 - June 2019
Full Stack Web Developer Intern
- Worked on an Assessment management web-based application, comprising of assessments and reports of assessments
- Implemented User Registration module. The UI module was developed in Angular and backend/API module was handled by Node.JS
- Performed User Authentication using JWT's Auth Tokens which were managed by Express.JS. Uploading of user documentation was done on AWS using Multer and Multer-s3 middleware
- Used MongoDB as database and Mongoose was used to model the data, connect to the database, store and fetch data
- Managed visualizations using RoboMongo for MongoDB Database and performed integration testing and simulation using Postman

Flutura Decision Sciences and Analytics, Bangalore, India   June 2018 - August 2018
Data Science Intern
- **Video Analytics using Deep Learning -** Analyzed Darknet (Open Source Neural Network Framework) YOLOV3 to identify faces (Image Classification and Object Detection through CNNs) to gauge whether individuals in CCTV feeds from construction sites are wearing appropriate safety equipment such as Hard hats, grounding equipment or not. Assessed dataset with 10,000 images
- Dealt with **TSFresh** - Time Series Feature Extractor package, **Keras** - Python Library for deep learning (with TensorFlow)
- Literature review on Time Series Anomaly detection using Long Short-Term Memory to recognize system failure

Cognizant Technology Solutions, Bangalore, India   June 2015 - July 2017
Infra Developer
- Designed and Implemented IT Infrastructure Robotic Process Automation (RPA) solutions used to automate service level automations
- Prepared and delivered automation solutions as per project plan with Javascript, Powershell and Unix Shell Scripting for basic server related activities. Experienced in automation technologies - Ipsoft, Ayehu Eyeshare

PROJECTS

Information Retrieval using PageRank Algorithm   *Java|Hadoop*
- Performed TF-IDF Page Rank algorithm on Wikipedia documents with Hadoop MapReduce
- Improved retrieval process by including search functionality, accomplished a batch mode search engine. Search engine accepts user query as an input and outputs a list of documents with scores matching queries

Amazon Product Classification based on Sentimental Analysis   *Python|Spark*
- Programmed a product classification system based on analysis of user reviews with Spark, Amazon EMR, S3 and EC2
- Executed Logistic Regression, Random Forest and Alternating Least Square with Collaborative Filtering

Game Playing Agent   *Java*
- Built an AI agent for 2-player deterministic game (Connect-4) to predict next optimal move
- Developed agent by making use of Minimax algorithm with Alpha-Beta pruning and Minimax-Cutoff with recursion
- Boosted application by building an Android App. Users can play multiple games against an AI and keep a score of their winnings

Chatbot   *Natural Language Processing|Python*
- Accomplished a Chatbot (a Retrieval Based Model in closed domain) for Ubuntu Dialog Corpus
- Trained model on 1,000,000 entries to conduct conversation focused around answering most commonly searched queries on Ubuntu help page. Executed chatbot through TF-IDF and RNN with LSTM

Novel Approach for Content Extraction from Web Pages   *Java|JSP*
- Devised a web extractor to extract relevant content from web pages
- Executed a new approach for Content Extraction with Word-to-Leaf Ratio and Link Attributes of nodes
- Achieved 0 loss of pseudo informative nodes, algorithm was successfully performed on div elements of web page

Camp Review Website   *Javascript|Express*
- Created a website with Node and Express where users can sign up and post reviews about camping sites
- Boosted features of website using Bootstrap, MongoDB to store user information, deployed application with Heroku and MongoLab