ABDULLAH MITKAR
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SUMMARY

A computer science graduate student with working experience as a consultant software developer for Morgan Stanley in software development, leading and handling the development and delivery of projects with a growing interest in data science and machine learning and with a firm foundation in various disciplines, strong professional credentials and a desire to contribute and gain positively from an organization and be a useful resource to it.

EDUCATION

State University of New York at Stony Brook – Masters in Computer Science	**GPA:** 3.6/4	**Aug 2019 – May 2021(Expt.)**
KJ Somaiya College of Engineering – Bachelors in Computer Engineering	**GPA:** 7.8/10	**Aug 2013 – May 2017**

RELEVANT COURSEWORK

Natural Language Processing	Computer Vision	Data Science Fundamentals	Analysis of Algorithms
Probability and Statistics	Data Structures	Object Oriented Programming	Databases

SKILLS

Languages: Java, Python, C, Perl, Shell, Angular, C++, Angular4, JavaScript, HTML, CSS, PHP, XML, JSON
Databases and Framework: IBM DB2, MySQL, Sybase, H2, Apache Camel, Hibernate, Spring, Junit, Mockito, Agile, MVC
Platform and Tools: IBM Message Queues, JIRA, Jenkins, Tensorflow, Pytorch, Git, BERT, Continuous Integration & development

WORK EXPERIENCE

Morgan Stanley **June 2017 – Aug 2019**
Consultant Software Developer, Mumbai, India

- Employer: Accolite Software India Pvt. Ltd
- Revamped the payment preprocessing gateway from the confirmations platforms for Morgan Stanley that decreased the memory footprint by 91% by using Streaming API for XML (StAX) parsing.
- Reduced the turnaround time for operational queries from 8 hours to real-time by creating a UI to address the operations team's queries.
- Increased productivity by 300x by automating data entry from PDF to web page by using NLP techniques.
- Saved 30 man-hours weekly by developing monitoring and automation scripts for applications developed that performed sanity checks and performed real time monitoring of applications in the QA and production environments.
- Instituted and collaborated on an application that monitors for fraudulent activities and reconciles SWIFT payments from Morgan Stanley.
- Pioneered and partnered on several business enablement items for the Global Cash Confirmation System.

Language Understanding and Reasoning (LUNR) Lab **January 2020 - Present**
Research Assistant, Stony Brook, USA

- Currently working on the project of future action recognition in food recipes through computer vision and natural language processing by using one shot prediction at a future timestep.
- Created a model using hugging face library for recipe1m dataset that understands recipes.
- Fine-tuned BERT through language modelling task for verbs only to identify the relations between actions of a recipe.
- Implemented knowledge distillation for language modelling task.

RELEVANT PROJECTS

Deep Reading of a Topic **December 2019**

- Investigated the question answering capabilities of a question answering model on a specific topic.
- Achieved ~4% increase in the f1-score as compared to a general question answering model trained on SQuAD.
- Tried to identify the impact of hybrid models created from language modelling and question answering to answer questions of a specific topic.

Image Recognition and Action Recognition **December 2019**

- Created a deep convolutional neural network for scene recognition using bag of features with an accuracy of 63%.
- Fine-tuned Alex-Net to identify features from a scene and create a model to identify them with an accuracy of 84%.
- Enhanced the accuracy further to 89% using pretrained state-of-the-art VGGNet.
- Identified actions from a video frame using LSTMs and VGGNet for 25 classes from the UCF101 Dataset with an accuracy of 84.75%.

Relation Extraction **December 2019**

- Identified the relation between entities of a sentence using Bidirectional GRU with an accuracy of 57%.
- Enhanced the previous model by using CNN based architecture to achieve an accuracy of 62.61% on SemEval dataset.

ELO Ranking Prediction using Play by Play records **December 2019**

- Predicted the ELO Ranking with a mean absolute error of 147 using Random Forest Regressor.
- Predicted the class of a chess player with an accuracy of 67% using Bidirectional LSTMs.

Sentence Classification **November 2019**

- Use glove word embeddings to create sentence representation for sentence classification using techniques like Deep Averaging Networks with an accuracy of 86.25% and Gated Recurrent Unit with an accuracy of 85.5% on sentiment analysis.

Implementation of Word2Vec **October 2019**

- Created a model to create vector representation of words using skip-grams using various loss functions like cross entropy loss and noise contrastive estimation.
- Use the above model on word evaluation to achieve an accuracy of 36.4% using cross entropy loss function and 34.6% using Noise Contrastive Estimation loss function.

Kaggle IEEE Computational Intelligence Society (IEEE-CIS) Fraud Detection **September 2019**

- Identified fraudulent credit card transactions by using Linear Regression with an accuracy of 81%.

Psycholyze **July 2017**

- Built a psychometric test based on the Myers-Briggs Type Indicator that identifies the user's personality type from the 16 types based on MBTI.
- Based on the personality type, it suggests prospective careers from a range of 150+ career options and resp. salaries.

Abstract Finder using Optical Character Recognition **Aug 2016 – Mar 2017**

- Prepared a web app to search an image that contains text on the internet and provide its source like Google reverse image search that saved 5 minutes for every search.

Result Repository **Jun 2015 – Aug 2015**

- Improved efficiency by 12x by automating reports generation from examinations related data by using SQL queries.
- Enhanced user experience by providing a user interface for quick and hassle-free report generations.
- Removed the turnaround time for students from 1 day to real-time to view transcripts and results by providing a UI.

ACHIEVEMENTS

- Received "Pat on the back" award for quick, seamless and successful delivery at Morgan Stanley.
- Published "A Case Study in the design of Source Extraction System" in the International Journal of Science and Engineering Volume 7 Issue 4.