

Akshat Maheshwari

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EDUCATION

THE UNIVERSITY OF TEXAS AT DALLAS
MASTER'S OF SCIENCE IN COMPUTER SCIENCE

Dallas, TX | Expected May 2023

IIIT HYDERABAD

BACHELOR'S OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING

Hyderabad, India | 2016 – 2020
GPA: 8.25/10 (Dean's List 2019-2020)

- **Teaching Assistant (Fall 2019):** Advanced Computer Networks under Prof. Shatrunjay Rawat
- **Teaching Assistant (Spring 2020):** Information Security Audit and Assurance under Prof. Shatrunjay Rawat

TECHNICAL SKILLS

Languages: JAVA • C++ • C • Python • Javascript • SQL • Bash

Frameworks: SpringBoot • NodeJS • Dropwizard • Flask • Django • Keras

Utilities/Technologies: Git • Linux • MySQL • MongoDB • Pytorch

EXPERIENCE

OLA CABS | SOFTWARE DEVELOPMENT ENGINEER

Bengaluru, India | Sept 2020 – Aug 2021

- Worked in the Supply Onboarding-Inventory-Compliance team for creating and managing APIs and services using **JAVA, Spring, Dropwizard, NodeJS, MySQL and MongoDB**
- Implemented **Lazy Loading** which improved cache performance reducing the DB latency from 600ms to 230ms
- Added instrumentation by **pushing data to in-house Kafka** services and **alerting in case of failures**
- Created end-to-end flow for supply compliance, comprising of **cron jobs for data download and matching, rules for rule engine, and an audit portal for the supply audit**, resulting in good audit reviews
- Implemented end-to-end flows for **bike on-boarding, automation of document submission asynchronously and unique encrypted tax id creation** by integrating various third party services for improved user experience

SUBTL.AI | RESEARCH ENGINEER INTERN

Hyderabad, India | Jun 2020 - Aug 2020

- Improved the accuracy of the **multi document retrieval and querying** by **15%** by changing the retrieval algorithm and the pipeline to improve the quality of text extraction from PDF files using **Python** and **Pytorch**.

OLA CABS | SOFTWARE ENGINEER INTERN

Bengaluru, India | May 2019 – Jul 2019

- Improved the efficiency of the **OCR (Optical Character Reader)** from **93% to 95.3%** by improving the image processing algorithms
- Developed a pipeline in **Python (OpenCV)** for filtering and enhancing images for documents' digitization using OCR

RESEARCH PROJECTS

QUERY-FOCUSED SUMMARIZATION

NLP, TRANSFORMERS, BERT, MMR, DOCUMENT SIMILARITY

Worked on query-focused summarization of multiple answers to get a summarized and coherent answer using **Maximal Marginal Relevance (MMR)**, and **BERT, PEGASUS** and other transformer models under Prof. Manish Shrivastava

PROJECTS

WHATSAPP CAB BOOKING SYSTEM

PYTHON, SPEECH TO TEXT, WEB SCRAPING

Developed an end-to-end system for cab booking using details provided by user in the WhatsApp message (text or voice)

C-SHELL

C, SHELL COMMANDS, FORKING, PIPING, REDIRECTION

Linux Shell implemented in **C language** with an interactive interface, and has features of forking, exec, signal management, error handling, basic shell commands, piping, redirection, etc.

FILE SHARING AND MANAGEMENT SYSTEM

JAVA, RPC, DISTRIBUTED SYSTEM, COMPUTER NETWORKS

A distributed file sharing and management system with file upload, download, group and user creation, and individual as well as group messaging functionalities.

MGCN FOR PROPERTY PREDICTION

PYTHON, PYTORCH, GRAPH CNN, MACHINE LEARNING

Implemented a **Multilevel Graph Convolution Network** for property prediction in large molecules using SMILE structures.

EMOJI TEXT CORRELATION

PYTHON, SENTIMENT ANALYSIS, CLASSIFICATION MODELS

Implemented various ML models for getting a relevant emoticon for a given sentence using **Sentiment Analysis and Classification techniques**.