

RAJASHEKAR REDDY ALUKA

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EDUCATION

Arizona State University, Tempe, AZ

Jan 2020 - Present

- Masters in Computer Science - 4/4

International Institute of Information Technology, Hyderabad (IIITH)

Jul 2013 - May 2017

- B.Tech in Computer Science and Engineering

TECHNICAL SKILLS

Languages: C, C++, Python, JavaScript, Java

Frameworks: Flask, Elastic Search, Web2py, Django, CodeIgniter, IOS, Android, Tensorflow, pyTorch

WORK EXPERIENCE

Bully Blocker

May'20 - Aug'20

Research Assistant under Dr. Yasin N. Silva, School of Mathematical and Natural Sciences

- Developed an action point app in IOS with backend API server code in PHP and database as MYSQL.
- Worked on collecting twitter data using python tweepy library.

Qualcomm Inc

June'2017 - Jan'2020

Software Engineer

- Developed a Machine learning models for regression problem using (MLP, Gradient Booster, XG Boost, SVM, Simple linear) to predict clock cycles per packet (CPP) based on metrics like (Q6 clock, TCM size, DDR clock, L2 Size, Threads), my gradient booster model is able to predict CPP with 92% accuracy.
- Worked with RD SanDiego team on 5G timelines data, where I process the large chunks of data (using parallel processing) to a human-readable format and find data insights present in it. For showing the data insights, I developed a dashboard in Django (python) with backend using PostgreSQL database.

IIIT Hyderabad

Aug'16 - Nov'16

Head Teaching Assistant, Under Prof Kamalakara Karlapalem, Centre for Data Engineering

- Worked as a head teaching assistant for Intro to databases course for a class of 230 strength in helping prof by conducting tutorials, designing assignments, evaluating their assignments and exams.

Progress Software

May'16 - Jul'16

Data SQL Development Intern

- Developed an interface provider for Open Access SQL engine in C/C++ for the rest data source Eloqua.
- Developed a data structure to read properties file(JSON) in C/C++ to make schema of Open Access dynamic.
- Researched on postgresSQL engine to embed in an application to develop foreign data wrapper for file data formats like (JSON, XML, CSV).

Wazzat Labs

Sep'15 - Oct'15

Software Developer Intern

- Developed a Fashion Visual Recognition API Demo to show the startup's idea of how e-commerce products can be searched by giving image as an input. A demo image of it : <https://goo.gl/nBRd3J>.
- Developed a dashboard in Django to show the stats of apparels for wazzat clients.

Justkapture

Jun'15 - Jul'15

Software Developer Intern

- Optimized the response loading time of website from 40 secs to 2 secs by using AJAX calls.
- Developed an admin interface which shows weekly/monthly stats of the campaign of Justkapture Advertisers.
- Developed an android app for retailers to check whether the coupon provided by the retailers was redeemed by the users or not, which helped the retailers to whether their strategy is working or not.

Shoppers Express

Jun'15 - Jul'15

Web Developer Intern

- Worked in a team of 4 people to develop a cashback website using PHP codeIgniter framework with MYSQL as database and bootstrap as front-end.

RELEVANT COURSES

- **Electives:** Complexity and Advanced Algorithms, Statistical Machine Learning in AI, Game Theory, Game Design, Optimization Methods, Advance Computer Networks, Distributed Systems, Advance Database systems, Advanced Computational Theory, Cloud Computing, Natural Language Processing, Data processing at scale.

- **Core:** Introduction to Databases, Structured Systems Analysis and Design, Data Structures, Algorithms, IT Workshop-1, IT Workshop-2, Operating Systems, Graphics, Computer Networks, Artificial Intelligence.

MAJOR PROJECTS

Smart Bill savings

- Developed a PAAS website in python flask to store the receipts and create grocery list based on the data which is extracted from an image using google OCR

Edge Computing

- Developed a system, which can auto scale the resources based on the number of requests and reduce the cost of using AWS resources

Pythia

- A visual answering LORRA model, we have added instance segmentation, N-gram and spell correcting OCR which improved the model accuracy by 3%

Wikipedia Search Engine

- Given a wiki dump of 42GB, this project retrieves the top 5 documents corresponding to the given query. First we have to create an index file and use TF/IDF-based heuristics to rank relevant wiki pages.

Face and Eye Detection

- This project aimed at detecting faces and eyes, given an image as input.
- Following the algorithm given by Viola and Jones it was implemented in Python using openCV, as it already contains pre-trained classifiers for faces and eyes.

Ultimate Tic-Tac-Toe

- Developed an intelligent rational decision-maker which takes the best possible decision in tic-tac-toe game.
- Implemented in python using MIN-MAX alpha-beta pruning algorithm & Game Theory concepts.

Consolidated Students Portal

- Developed a web application in Django which stores student's academic data.
- This Web application has different access levels like parent, student, faculty, TA and admin staff at one place.

OTHER PROJECTS

Story Filling App

- Developed an Android app which reads story with blanks from a file and expects user to fill them up.

Mini SQL Engine

- Implemented a mini SQL query parser and executor in C++ to manipulate and retrieve data in csv files with appropriate error handling.

Carrom Board

- Developed a 2D carrom board game in C++ using OpenGL.

File Transfer Protocol

- Developed an app level file transfer protocol with support for download and upload of files and indexed searching.

Pharmacy Database

- Developed a raw PHP Application as a prototype for explaining better way of storing values in tables for a Pharmacy Database.

Multi-Daemon Pacman Game

- A multi-daemon pacman game developed in Python using OOPS concepts.

ACHIEVEMENTS

- Enlisted in Dean's list for Academic Excellence for the academic year 2016-17.
- Won 2nd place out of 40 teams in Urban Pre-hackthon for the best idea & app design held at ISB Hyderabad.
- Cleared second round in **Codechef Smackdown** where around 9077 teams have participated in this competition.
- Secured All India Rank (AIR) 4254 in IIT-JEE 2013 out of around 1.5 lakh students.
- Cleared 1st level of The Association of Mathematics Teachers of India (AMTI) and SIMO.

EXTRA-CURRICULAR ACTIVITIES

- Felicity Buzz coordinator, a cultural techno fest at IIIT Hyderabad - 2014.
- Worked as a Member of Messcom for 1 year, which is a student body which controls all messes in IIITH.
- Led the team to win trophy in inter school kabaddi competitions out of 10 teams participated.