

# RAJASHEKAR ALUKA

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## EDUCATION

### Arizona State University (ASU), Tempe, Arizona

Expected Dec 2021

- Masters in Computer Science, GPA : 4.0/4

**Coursework:** Cloud computing, Data processing at scale, Natural Language Processing, Data mining, Data visualization, Algorithms, Statistical Machine Learning\*, Information Assurance Security\*, Semantic web mining\*

### International Institute of Information Technology (IIITH), Hyderabad

Jul 2013 - May 2017

- B.Tech in Computer Science and Engineering, CGPA : 7.28/10

## TECHNICAL SKILLS

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

**Tools & Frameworks:** Flask, Django, Celery, NodeJS, ReactJS, VueJS, Elastic Search, PostgreSQL, MySQL, SkLearn, Tensorflow, pyTorch, AWS EC2, Google App engine, Google Compute Engine, Google pub-sub

## PROFESSIONAL EXPERIENCE

### ASU Decision Theater Network

Mar'20 - present

Software Developer

- Pulse: Developed a robust and scalable distributed computing architecture for collecting live tweets from twitter. Technologies used are: Python, Flask, Celery, RabbitMQ, Elastic Search, PostgreSQL.

### Bully Blocker

May'20 - Aug'20

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

- Developed an action point application in IOS with backend API server code in PHP and database in MYSQL which is hosted on AWS EC2.

### Qualcomm Inc

Jun'17 - Jan'20

Software Engineer

- Developed a machine learning model for the regression problem to predict the performance metrics of a chipset. This model predicted performance metrics with an accuracy of 95%.
- Worked with RD San Diego team on 5G timelines data to process the large chunks of data using distributed processing to a human-readable format. To show 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

- Debugged around 7000 lines of C++ code to implement an interface provider which interacts with open access SQL engine to query the data from different file formats.

### 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 the same : <https://goo.gl/nBRd3J>.

### Justkapture

Jun'15 - Jul'15

Software Developer Intern

- Developed an admin interface which shows weekly/monthly stats of the campaign of Justkapture Advertisers. Optimized the response loading time of website from 40 secs to 2 secs by using AJAX calls.

## ACADEMIC PROJECTS

- **Smart Bill savings:** Developed a PAAS website in flask to store the receipts and create grocery list based on the data extracted from an image using google OCR. [GitHub Link](#)
- **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. [GitHub Link](#)
- **Pythia:** Enhanced the visual question answering, LORRA model by adding instance segmentation, N-gram and spell correcting OCR leading to an increase in 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. The first is to create an index file and use TF/IDF-based heuristics to rank relevant wiki pages.
- **File sharing Protocol:** Developed an app level file transfer protocol with support for download and upload of files and indexed searching.