Rajashekar Reddy Aluka

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Education

- **Arizona State University** — ASU, Tempe
  Masters in Computer Science; GPA: 4.0 — *Jan 2020 - present*
  Courses: Cloud Computing, Data Processing at Scale, Natural Language Processing, Data Mining, Data Visualization*, Alogrithms*.*
- **International Institute of Information Technology** — IIITH, Hyderabad
  Bachelor of Technology in Computer Science and Engineering — *Aug 2013 - May 2017*

Skills Summary

- **Languages**: C++, Python, C, JavaScript, SQL, Java, Swift, PHP, Bash
- **Tools & Frameworks**: GIT, Django, Flask, Celery, Redis, RabbitMQ, Codeigniter, Postgres, JIRA, Pytorch, Tensorflow, XCode

Experience

- **ASU Decision Theater Network** — Tempe, AZ
  Student Software Developer — *Mar 2020 - Current*
  - **NSF Project**: Working on campus as a part time software developer in developing a dashboard using python flask framework as backend and Vue JS as frontend.
  - **Pulse**: Worked on setting up the distributed computing to split the tasks to multiple workers using python celery framework and RabbitMQ as broker.
- **Qualcomm Inc** — Hyderabad, India
  Software Engineer (Modem Performance, counter part team operated from San Diego) — *Jul 2017 - Jan 2020*
  - **5G Modem Timelines**: we have to process large chunks of data (using distributed Computing) to a human-readable format and extract data insights present in it. For showing the data insights, I also have developed a dashboard in a python framework Django as backend, with PostgreSQL as database and Plotly for plotting the graphs.
  - **Clock Cycles Per Packet**: Developed Machine learning models for a regression problem using (MLP, Gradient Booster, XG Boost, SVM, Simple linear) to predict CPP based on metrics (Q6 clock, TCM size, DDR clock, L2Size, Threads), where XG boost model is able to predict the CPP with an accuaracy of 92%.
- **Progress Software** — Hyderabad, India
  Data SQL Development Intern — *May 2016 - Aug 2016*
  - **Interface Provider**: Debugged around 7000 lines of C/C++ code to understand the Open Access SQL engine and implemented an interface provider for connecting (using Libcurl) rest oracle data source Eloqua.
- **Wazzat Labs** — Hyderabad, India
  Software Developer Intern — *Sep 2015 - Oct 2015*
  - **Idea Demo**: Developed a demo of how Fashion Visual Recognition API can be used to search e-commerce products by giving image as an input. A demo image of the implementation: https://goo.gl/nBRd3J .
  - **Apparel Dashboard**: Developed a dashboard in Django to show the stats of apparels for wazzat clients and suggest a suitable android APK based on the items list uploaded by the client.

Academic Projects

- **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. (Feb '20)
- **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. (May '20)
- **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. (Mar '16)

Teaching/Leadership Experience

- Worked as a Head Teaching Assistant for Intro to databases course under Prof. Kamal Karlapalem at IIITH for a class strength of 230 students.
- Worked as a Member of Messcom at IIITH for 1 year to improve and serve better food to the students.