Shalaka Vaidya

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EDUCATION

National Institute of Technology, *Calicut, KL*
Bachelors of Technology in Computer Science and Engineering   *Jun. 2012 – Jul. 2016*
CGPA: 8.37 / 10.00

Indian Community School, *Salmiya, Kuwait*
Higher Secondary Education   *Apr. 2010 – Mar. 2012*
Percentage: 90.8%

PROFESSIONAL EXPERIENCE

International Institute of Information Technology (https://www.iiit.ac.in/), *Hyderabad, India*
Research Assistant   *Jan. 2019 – current.*
- **Built a Reading Comprehension System**
  Developed an advanced reading comprehension system which was published in an international conference.
- **Audited course**
  Audited advanced course in Computational Linguistics and submitted project as partial fulfillment of the course.
- **Volunteered for Paninian Linguistic Olympiad**
  volunteered for correction of the papers and send out the certificates for the participants.

SAP Successfactors (https://www.successfactors.com/), *Bangalore, India*
Software Development Engineer   *Jul. 2016 – Jan. 2019*
- **Resilience Assessment Tool(RAT)**
  Built a tool from scratch which could test the resiliency of the servers remotely. Multi-Threaded tool would shut down multiple servers remotely and randomly to see the time it takes to restore them. If not restored, they would be restored remotely by the tool and logged. The logs served the business purpose to verify the resiliency of the servers.
- **Instance Sync Tool(IST)**
  The tool was responsible to sync data and the customized databases across instances.
  - Added enhancement features to improve the efficiency of the tool.
  - Worked on the high level customer issues which have time limit.
  - Removed code redundancy and changed the modularization of the code. Also removed existing circular dependencies in the tool to ensure seamless build.
  - Resolved the bugs ranging from backend to UI based.
  - Enhanced the tool to incorporate new artifacts for syncing.
- **Execution Manager(XM)**
  Provided total execution cycle of a process which had various checkpoints induced in it with the API of XM. The pictorial representation of the tasks made it easier to observe and filter out the task and obtain the detailed version.
  - Added some new filters for the visibility of the data.
  - Resolved a major bug dealing with simultaneous data entry.

Embibe (https://www.embibe.com/), *Bangalore, India*
Software Intern   *Apr. 2015 – Jun. 2015*
- **Business Metrics Server**
  - Built a Business Metrics Server, to identify the traffic on the site and understand the user behaviour to improve the experience.
- **Miscellaneous**
  Worked on fixing various bugs on the platform written in Rails, Angular-js.

International Institute of Information Technology (https://www.iiit.ac.in/), *Hyderabad, India*
Summer Intern   *Apr. 2014 – Jun. 2014*
- **Built a NLIDB system**
  NLIDB system was demonstrated at the end of internship for the library domain.
- **Attended Summer School**
  - Attended the lectures by prominent speakers in field of NLP.
  - Submitted the project on Anaphora Resolution.

ACADEMIC PROJECTS

Reading comprehension system(Published in ICON 2019)
Guide: Dr. Radhika Mamidi   *Jan. 2019 – Oct. 2019*
The system presents a novel approach designed to answer questions on a reading comprehension passage. It is an end-to-end system which first focuses on comprehending the given passage wherein it converts unstructured passage into a structured data and later proceeds to answer the questions related to the passage using solely the aforementioned structured data. The comprehension stage converts the passage into a Discourse Collection that comprises of the relation shared amongst logical sentences in given passage along with the key characteristics of each sentence.

Implemented an Algorithm for Global Value Numbering,

Guide: Dr. Vineeth Paleri   *Jul. 2015 – Jun. 2016*

Implemented the algorithm for redundancy detection in compilers coauthored by the guide. As part of the project, we came up with an optimal data structure to implement the algorithm and validated the findings of the paper using LLVM.

Classification for cancer,

.   *Jan. 2015 – Jun. 2015*

On a relatively dirty data set, performed data cleaning using OpenRefine tool. Used PCA and correlation matrix to reduce unwanted features. Built models on the clean data set to get maximum accuracy using RapidMiner. The model predicted whether the given patient with certain attributes has cancer.

Simple Integer Language(SIL),

Guide: Dr. Vineeth Paleri   *Jan. 2015 – Jun. 2015*

Used LEX and YACC to build a compiler for a language which supports recursive function calls, basic composite data structures and different ways of passing value in function calls.

eXperimental Operating System(XOS),

Guide: Dr. Murli Krishnan   *Aug. 2014 – Nov. 2014*

- A platform to develop a toy operating system, which supports multiprogramming, demand paging, XFS(experimental file system). It uses a custom-defined language called SPL(Systems Programming Language) to write the kernel and APL (Application Programming Language) for applications.
- The main aim of this project to get familiar with various data structures and hardware constructs used in operating systems.

Natural Language Interface to Database(NLIDB) system for Library Domain,

Guide: Dr. Radhika Mamidi   *Apr. 2014 – Jun. 2014*

Built a NLIDB system for library domain. The POS tags from a parser along with the BIO tags for named entity recognition(NER) of the query were trained using CRF++. The tags for the query were then translated into a SQL query to get the data from the Database.

Anaphora Resolution,

Guide: Dr. Radhika Mamidi   *Apr. 2014 – Jun. 2014*

Anaphoras in Hindi were classified into Event and Concrete anaphoras using rules. These were later used to classify the anaphoras using decision trees.

Online Courses

- *Neural Networks and Deep Learning* by deeplearning.ai. Received score of 93.6%
- *Natural Language Processing* by National Research University Higher School of Economics
- *Machine Learning* by Stanford University
- *An Introduction to Interactive Programming in Python* by Rice University. Received score of 83.9%

Miscellaneous

- Conducted hands-on workshop on linux at KMCT College of Engineering as part of IEEE.
- Part of the program committee of Ragam 2014 and 2015(college cultural fest)
- Executive of Indian Society for Technical Education(ISTE).
- Executive of Computer Science and Engineering Association(CSEA)
- Attended national workshop on "NLP: from foundations to emerging AI techniques".

Technical Skills

Programming Languages: C, C++, Python, Java, Shell Scripting
Tools: CRF++, RapidMiner, TensorFlow, Google Refine, PyTorch, LLVM