

DHAMARASELVI SEKAR

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Professional summary

To secure a challenging position where I can effectively contribute my skills as Software Professional, possessing competent technical and leadership Skills

Work history

Project Associate

Indian Institute Of Technology, Madras

15th Sep 2014 – Current

Speech Based Access For Agricultural Commodity Prices And Weather Information For 11 Languages/Dialects

Job Responsibilities:

- Involved in Machine learning for automatic speech recogniser and building CDHMM, DNN, CNN, BLSTM robust model using Kaldi Tool Kit.
- To implement intelligent ideas in Language model and Database to handle noise and other problems.
- The Computer Telephony Interface (CTI) hardware (Sangoma Model – A200) used for collecting data was identical for all systems and digital telephone lines (E1/BRI) were used in all cases and Asterisk was used as the telephone server
- Creating Pronunciation Dictionary for district, market and commodity with alternate variations.
- For dissemination of the prices of the agricultural commodities, an interactive voice response (IVR) system was developed on Asterisk voice server using Hypertext Preprocessor (PHP) script for each of the 11 languages. Once the district and the commodity names are successfully recognised, the price information is fetched from the PostgreSQL database and is played as a prerecorded message. At times the updated prices for the requested commodities are not available in that district, in which case the system gives the price of the commodity in the nearest neighbouring district vice versa for weather information.
- Co-ordinating with other ASR Consortium members and also handled event management.

Publication

The conference held at Gandhigram Rural Institute on 9th - 11th September 2016. In 15th Tamil Internet Conference I authored a paper titled “Challenges in Building Speech-Based Agricultural Price Information Systems in Indian Languages” under Prof. Umesh S from IIT Madras. The paper is selected in Language Technology R&D Journal. The Code for paper is TRD002_Agri Price ASR – Challenges.

Website link for Paper is “<http://tamilinternetconference.org/ஆய்வரங்கம்/>”

Project Consultant

Job Responsibilities:

- Project management to ensure on-time/in-budget project completion
- Quantitative and qualitative data analysis
- Primary and secondary research
- Drafting of written reports and preparation of presentations
- Maintaining and/or developing client relationships
- Responding to proposal requests

Project Associate*Indian Institute Of Technology, Madras**2nd Jan 2012 – 28th Feb 2014***Speech Based Access For Agricultural Commodity Prices For Six Indian Languages****Job Responsibilities:**

- Involved in Machine learning for automatic speech recogniser.
- Building robust model using HMM.
- To implement intelligent ideas in Language model and Database to handle noise and other problems.
- Interfacing Telephone with Speech Recogniser.
- Database updation using a Perl Script for Web crawl
- Creating Pronunciation Dictionary for district, market and commodity with alternate variations.
- For dissemination of the prices of the agricultural commodities, an interactive voice response (IVR) system was developed on Asterisk voice server using Hypertext Preprocessor (PHP) script for each of the six languages. Once the district and the commodity names are successfully recognised, the price information is fetched from the MySQL database and is played as a prerecorded message. At times the updated prices for the requested commodities are not available in that district, in which case the system gives the price of the commodity in the nearest neighbouring district vice versa for weather information.
- Documentaion for report and data using Kile documentation.

Skills

Programming Languages	PHP(basics), Shell scripting
Operating System	Windows, Linux(Ubuntu,centos, etc)
Web Technologies	HTML
Database /Tools	MySQL, Postgressql, Sphinx, Kaldi, Kile documentation, MS Office, Phpmyadmin, Phppgadmin

Education

- B.E Computer Science and Engineering in 2011 from VRS College of Engineering & Technology with 71%
- Higher Secondary (XII) in 2007 from Ramakrishna Vidyalaya Matriculation Higher Secondary School with 70.9 %
- Matriculation (X) in 2005 from Ramakrishna Vidyalaya Matriculation Higher Secondary School with 68 %

Achievements

- 8th place in National level Hackerearth competition in Artificial Intelligence under Speech Recognition.

Certification

- Redhat and Unix shell scripting certification is done in the year 2017 from Global Institute of Networking Technology.

Declaration

The information provided above is true to the best of my knowledge and belief.

(DHAMARAI SELVI)