#### **CURRICULUM VITAE**

### R. SHANMUGAM

ADDRESS: Email: shanfaace@gmail.com,

No. 25 Bajanai Kovil Street, <u>shanmugamr@C-DAC.in</u>

Konrajankuppam,Ayanambakkam post Contact No: 07709276836, Maduravoyal via 09791132030

Chennai - 600 095

**OBJECTIVE:** Linguistics being a window to human brain, wish to enable Human to Machine interaction as seamless as Human to Human one.

## **EDUCATIONAL QUALIFICATION**

## **Under Graduation**

Presidency Arts and Science College

Bachelor in Tamil Literature – 1999 - 2002

Aggregate Percentage: 68.36 %

Major: Tamil Literature

### **Post-Graduation**

University of Madras

Master of Arts in Applied Linguistics - May 2004

Aggregate Percentage: 83.18% Major: Applied Linguistics

Project work: "Concordancer - An Introduction"

### **Research Background**

Master of Philosophy in Computational Linguistics - August 2005

Aggregate Percentage: 84.33 %

Major: Computational Linguistics, University of Madras

(Title of the thesis "Computational Tamil Morphophonemics (with reference to

external sandhi)")

**Doctor of Philosophy in Computational Linguistics – August 2011** (Title of the thesis "Issues in Morphological Parsing for Modern Tamil")

Major: Computational Linguistics, University of Madras

## TECHNICAL QUALIFICATION

Languages: C, C#, PERL, VB 6.0, .NET, JAVA and Basic Knowledge of Flash and Photoshop

Text Editors: Notepad++, Editplus, Ultraedit, Babelpad and MS Office

<b>Employment History:</b>		
Directorate of Tamil Development	Research Fellow	October 2005 - March 2006
Lingsoft Solutions	Computational Linguist	April 2006 - Sep-2006
	Computational Linguist	27 <sup>th</sup> March 2007 to 28 <sup>th</sup> Feb 2009
Central Institute of classical Tamil	Linguist cum Programmer	Jan 2010 - Dec 2010
Project		

C-DAC, Pune	Computational Linguist -	Feb-2011 till date.
	Tamil Language	

#### PROFESSIONAL SUMMARY

The development of Tamil Spell checker	
Employer	Directorate of Tamil Development – Tamil nadu
Client	Directorate of Tamil Development
Role	Research Fellow
Team size	8
Duration	October 2005–March 2006

#### **Description**

Development of Tamil Spell checker was focused to solve the typographical errors.

### **Key Features:**

- It is a stand alone word processor.
- It will spell check the document.
- It is TAM compliant.
- It has the ability to spell check the inflected words as well.

Development of Spell checker and Grammar checker	
Employer	Lingsoft solutions, chennai, Tamilnadu
Client	-
Role	Compuatioanal Linguist cum Programmar
Team size	10
Duration	April 2006 - Sep-2006, 27 March 2007 to 28th Feb-2009

## **Description**

Development of Tamil Spell checker was focused to solve the typographical errors as well as suspicious sounds error. Grammar checker was focused to Tamil Sandhi errors which will play a vital role in Tamil syntax.

## **Key Features:**

- It is a stand alone word processor.
- It will check the spelling and grammar of the document.
- It is Unicode compliant.
- It has the ability to spell check and grammar check the inflected words as well.

Client	Prof.C.Subramaniyam	
Role	Linguist cum programmer	
Team size	2	
Duration	Jan 2010- Dec2010	

Development of Tamil Concordancer was focused to give the citation for each and every word of Sangam Literature with special reference to *pathupaattu*.

### **Key Features:**

- It is a stand alone Application developed by using VB.NET.
- It will give the citation and line number of the input.
- It is Unicode compliant.
- It has the ability to give the frequency count as well.

I-Suggest -An Intelligent Transliteration system for Indic Scripts	
Employer	C-DAC, Pune
Client	Business Development Team, C-DAC
Role	Linguist
Team size	4
Duration	January 2013–May 2013

### **Description**

I-Suggest is a new and fast transliteration mechanism, for transliterating English text to Indian languages and vice versa. It is available in 9 languages, viz. Hindi, Marathi, Gujarati, Urdu, Nepali, Tamil, Telugu, Malayalam and Bengali.

### **Key Features:**

- It transliterates from English to Indian languages and vice versa.
- It transliterates Proper Nouns as well as general text.
- It is ISCII as well as UNICODE compliant.
- It can be used in standalone applications as well as in Web applications.
- It has the ability to transliterate compound words as well.

### **Responsibilities and Tasks Performed**

• Development of Linguistic rules, maintenance and testing of I-Suggest.

Tamil Spell Checker and Corpus Development Project	
Employer	C-DAC, Pune.
Client	Natural Language Processing Team, C-DAC
Role	Linguist
Duration	
Team size	5

#### **Description**

Compilation of grammatical rules i.e. morphotactics, suffix dictionary preparation for Tamil Spell Checker. Maintenance and testing of C-DAC's language independent spell checking system. Corpus development includes the collection of various text corpus in different domains.

### **Responsibilities and Tasks Performed**

- Designing grammatical rules
- Development and testing of the system.
- Validating and Enriching of corpus.
- Suffix tagging.

Unique Identification number (UID) Aadhaar Project	
Employer	C-DAC, Pune.
Client	UIDAI, GOVT. of INDIA
Role	Project Engineer
Duration	Jan 2011 – Jan 2012
Team size	4

## **Description**

Collecting person names and place names of Tamil Nadu and transliterating them into Tamil.

## Responsibilities and Tasks Performed

- Transliterating the names into Tamil.
- Validation of names and addresses in Tamil.

VERBNET	
Employer	C-DAC, Pune.
Client	Natural Language Processing Team, C-DAC
Role	Linguist
Duration	Jan 2012 – Till date
Team size	5

#### **Description**

VerbNet provides the key components of both the syntax and the semantics of these classes, it will be useful for large scale natural language processing applications such as information extraction and Machine translation.

#### **Responsibilities and Tasks Performed**

- Classification of Tamil verbs into Transitive, Intransitive, Copula, Vector, Causal etc.
- Analysis of their predicate-argument structure as well as their semantic content.

#### PRESENTATIONS AT SEMINARS/CONFERENCES:

- Presented a paper Entitled "Generative Lexicon and Lexicography" at the 2<sup>nd</sup> international conference on Indian lexicography (March 21 23, 2005).
- Presented a paper Entitled "Problems with Noun Morphological Parser" at the 1<sup>st</sup> international seminar on Tamil studies: Retrospect and Prospect (FEB 14 15, 2007).
- Presented a paper Entitled "Issues in Tamil sandhi checker with special reference to Noun+ Noun" at the National seminar on e – POTENCIAL OF TAMIL LANGUAGE IN TELECOMMUNICATION (1st NOV, 2008).
- Presented a paper Entitled "Aspects of Language Teaching" at the National seminar on Language Teaching/Language Learning (March 02 04, 2009).
- Presented a paper Entitled "Teaching preposition using Concordancer" Dr. Professor S. Agasthiyalingam memorial seminar (March 28 04-2009).

- Presented a paper entitled "perumpaaNaaRRuppataic coRkaLiN thaRkaala poRuNnmai maaRupaatukaL" at the conference "IlakkaNna nookil cevviyal ilakkiyankkaL" (17-03-2010)]
- Presented a paper Entitled "Role of Regular Expression in Morphological Analysis" at the World Tamil Conference (June, 2010).
- Presented a joined paper Entitled "Bodo Spell Checker: A Finite State Automata Approach."
   at the International Conference 18 Himalayan Languages Symposium at Banaras Hindu University, Varanasi, India (September 10-12,2012)
- Presented a paper Entitled "Text -based Applications for Sangam literature using Computer Technology" at the National seminar on "Computational Technologies for sangam Literature Research" conducted by SRM University (Feb,2012).
- Participated in the Savitribai Phule Pune University sponsored International joint conference on "Natural Language Processing & Big Data" - at Indira Institute of Management (MCA) -Pune. Held on 13-14 Feb.2015.
- Participated in the National conference "R-Voting" -organized by C-DAC GIST and Election commission of India held on 20-21 JUL2015 at IITM Pune.

### PARTICIPATED WORKSHOPS:

- "Tholkaappiyap payilarankkam" organized by Classical Tamil Research centre (CIIL) & Dept. of Tamil Language, University of Madras. (31-03-2008 to 09-04-2008)
- "Tamil ilakkaNna marapukaL" organized by Classical Tamil Research centre (CIIL) & Dept. of Tamil Language, University of Madras. (09-03-2009 to 18-03-2009)
- "Tolkappiyak kotpaatukalum vithikalum" organized by Classical Tamil Research centre (CIIL) & Dept. of Tamil Language, University of Madras. (11-11-2009-20-11-2009)
- UGC-sap National workshop ON CORPUS ANALYSIS FOR INDIAN LANGUAGES (18-10-2005 TO 27-10-2005), Annamalai University, chithambaram
- National Workshop on BIS Annotation Scheme for the Indian Languages (Jointly organized by ILCI and ILMT consortia), IIIT Hyderabad, 21-23 July, 2012

#### **DELIVERED LECTURE(S):**

- Delivered a lecture on "Morphological Parser" for the national workshop on "Tamil Computational Linguistics" conducted by Tamil Academy, SRM University 2012.
- Invited as a Speaker for National Workshop on Language Technology organized by Tamil Virtual Academy chennai, 8-9th August 2015.

# **AWARD(S) & RECOGNITIONS:**

- Best Performer of the year 2013 by GIST R&D C-DAC Pune.
- Appointed as a Chief Resource person (CRP) for the project of LDC-IL, CIIL Mysore.
- Nominated as a panel member from C-DAC Gist for "POS tagset for Indian Languages" with BIS standards.

## ARTICLES PUBLISHED (CONFERENCE PROCEEDINGS):

- Paper Entitled "Linguistically Annotated Dictionary (LAD) for Natural Language Processing

   With special reference to Noun" at the World Tamil Internet Conference (Sep, 2014). ISSN 2313-4887
- Paper as a first author Entitled "Creation of Tamil Morphological Parser" at the international Tamil Conference organized by Ethiraj college (Nov, 2014). ISBN: 978-93-84725-73-0 -VOL 1
- Paper as a second author Entitled "TTS via Computational Linguistics principles and issues" at the International Tamil Conference organized by Ethiraj college chennai (Nov, 2014).
   ISBN: 978-93-84725-74-7 VOL 2

#### **JOURNAL(S)**

 Published an article in an International Journal of Law and social sciences with the title of "A MORPHOLOGICAL PARSER FOR MODERN TAMIL VERBS" (ISSN: 2394 - 4277)

PERSONAL DETAILS	
Date of Birth	Dec 19, 1981
Sex	Male
Nationality	Indian
Religion	Hindu
Marital Status	Married
Languages Known	Fluent in Tamil and English (Can understand Hindi as well)
Present Address	Shanmugam R
(For Communication)	GIST Labs
	5th floor,C-DAC INNOVATION PARK,
	PANCHAVATI, PASHAN, PUNE : 411 008
	MAHARASHTRA, INDIA.

## **DECLARATION:**

I declare that the information and facts furnished above are true and correct to the best of my Knowledge and belief.

Yours truly,

Date: 01-06-17

Place: Pune.

(R. SHANMUGAM)