



## Santhosh Thottingal

Language Computing professional and typeface designer

Principal Software Engineer at Wikimedia Foundation



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<https://github.com/santhoshtr> (https://github.com/santhoshtr)



Kerala, India

Seasoned Software Engineer with 20 years of experience specializing in language computing. Renowned digital typeface designer recognized for innovative Malayalam script typefaces. Combines technical expertise with unique aesthetic vision to develop breakthrough language technologies for complex scripts.

- Architected and deployed multilingual language tools reaching millions of users
- Built language technology infrastructure for low-resource languages using open source solutions
- Developed sustainable developer communities around language computing initiatives
- Created digital typefaces with exceptional aesthetic sensibility for complex scripts
- Pioneered Malayalam language computing tools used by hundreds of thousands daily
- Contributed to academic research with multiple publications and recognition as a thought leader in the field

## Professional Experience

### Wikimedia Foundation

13 years 7 months

**Principal Software Engineer** August 2019 - Present · 5 years 8 months

**Senior Software Engineer** September 2011 - August 2019 · 8 years

### Infosys

6 years 1 month

**Junior Technology Architect** 2005 - 2011 · 6 years

**Software Engineer** 2005 - 2010 · 5 years

## Awards

**Maharshi Badrayan Vyas Samman by the President of India 2019**

*For the contributions in language computing*

**Mathrubhasha Puraskaram by Sree Sankaracharya University of Sanskrit, Kalady. 2019**

*For the contributions to the Malayalam language*

## Major projects

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Malayalam morphology analyser using Finite State Transducer technique. This is foundation for many Malayalam language projects like spellchecker and named entity recognition

Defined Hyphenation Patterns of 11 Indian Languages. Used in various typesetting applications such as LaTeX, Indesign. Also ships with Android and chrome and firefox based browsers.

Developer and Maintainer of Swanalekha transliteration based phonetic input method for Malayalam. Available in GNU/Linux distros and used by thousands of people.

Designed and developed general purpose input method library jquery.ime used in Wikipedia, which later ported to Android and Firefox OS. 150+ input methods in about a hundred languages contributed by community.

Designed some of the most popular typefaces of Malayalam. Chilanka, Manjari, Nupuram and Malini. Nupuram is the first variable color font in Malayalam and in Indian languages. These fonts are part of digital Malayalam - Printing, news papers, magazines, government orders, bill boards, grocery packets, wedding invitations, memes, movie titles and so on.

Lead the article translation project of Wikipedia which has been used to translate and publish two million articles to 300+ languages. Built the inhouse machine translation system of Wikimedia with free and opensource neural machine translation models to support translation between 250+ languages.

## Research and publishing

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**Parametric type design in the era of variable and color fonts** *Grapholinguistics in the 21st century - From graphemes to knowledge- 2024*

**Finite State Transducer based Morphology analysis for Malayalam Language** *2nd Workshop on Technologies for MT of Low Resource Languages, European Association for Machine Translation, August 20, Dublin, Ireland.*

**Spiral splines in typeface design: A case study of Manjari Malayalam typeface** *Typoday 2018, University of Mumbai. March 2018.*

**Malayalam Orthographic Reforms: Impact on Language and Popular Culture** *grafematik : Graphemics in the 21st century—From graphemes to knowledge, Pôle numérique Brest Iroise at Brest, France, on June 14-15, 2018.*

**OPUS-MT – Building open translation services for the World** *22nd Annual Conference of the European Association for Machine Translation*

**Machine aided content translation at Wikimedia** *European Association of Machine Translation conference, Antalya, Turkey.*