# Susindhar Arumugapriya Venkatesan

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#### **EDUCATION**

## Vellore Institute of Technology

Chennai, India

Bachelor of Technology in Computer Science and Engineering

• Cumulative GPA: 8.90/10

#### **WORK EXPERIENCE**

## School of Computer Science and Engineering

Chennai, India

Research Intern

May 2022 - July 2022

- Collaborated with three eminent professors on a consultancy project involving creation of a MOOC platform. I examined the possibility of an answer grading system comparing typed answers to answer keys semantically.
- Analyzed self-attention algorithms for different Transformer-based models, and contextualized word-embedding techniques using word2vec, BERT, ELMo and experimented with changes to self-attention and encoding architectures.
- Designed a new architecture on a BERT-based sentence encoding model and optimized its efficiency compared to existing sentence embedding based answer grading models.

### **PROJECT EXPERIENCE**

## Identifying Context-based Precedent Rulings in Tamil Text

Chennai, India

December 2022

- For the state-level hackathon on Tamil Computing
- Created an intelligent information retrieval system to look up legal documents and judgements of old cases recorded in Tamil language text.
- Trained a transformer-based document similarity model to compare text documents in Tamil, which is then used to identify similar cases and detect possible precedent rulings.
  - Proved that the system would reduce the time taken for reference by more than 80% for lawyers practicing in Tamil.
- The system would benefit thousands of attorneys practicing in Tamil, most of whom are working cases pro bono and/or public prosecutors/defenders.

## **AWARDS & ACCOLADES**

Tamil Computing Hackathon: Won first place in a state-level hackathon on Tamil Computing organized by Tamil Virtual Academy, Ministry of IT, Govt. of TN. More than 120 students participated in the event, and I pitched my idea to the Minister of State for Information Technology and Digital Services, Mr. Mano Thangaraj. I also won a cash prize of Rs. 50,000.

### LEADERSHIP EXPERIENCE

## Jeevana International School

Madurai, India

Headboy

*July 2019 - March 2020* 

Headed the student council of 24 members. Organized four major events at school, all of them involving eminent guests
of honor, oversaw all processes including logistics, schedule and allocating tasks to the organizing team. Developed a
new system to increase the standard of the school sports facilities, which included designing a 100-meter running track.

## School of Computer Science and Engineering, VIT Chennai

Chennai, India

Editor-in-Chief, SCOPE Newsletter

*July 2019 - March 2020* 

- Curate overall content of the monthly SCOPE Newsletter, which includes details of all happenings in the school, special
  issues, and highlighting the core vision and principles of the School. Created powerful, original stories that spoke about
  the research culture, the work dynamics and contribution by students and academia towards the industry.
- Interviewed over 15 alumni of the school from different parts of the world, telling their success stories. I also interviewed several inspiring students studying at SCOPE, and presented their meaningful impact to the school community.

### **SKILLS & INTERESTS**

Skills: Full Stack Web Development (Front-end frameworks: basic React; Back-end frameworks: Django, Node.js), Machine Learning – Natural Language Processing (using Scikit-learn and Hugging Face libraries), PyTorch.

**Languages:** English, Tamil, Hindi; R, Python, C++, Java. **Art/Design:** Poetry and Short Story Writing, Typography