VARSHINI PRAKASH

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OBJECTIVE

Passionate and dedicated individual seeking admission into a Graduate Program in Computer Science to pursue extensive research in cutting-edge technology.

EDUCATION

VIT University, Vellore, India

Bachelor of Technology, Computer Science May 2020

CGPA: 9.26/10.0 (Major GPA: 9.39)

Selected Coursework: Data Structures & Algorithms, Networks & Communications, Operating Systems, Software Engineering, Machine Learning, AI, Data Mining, Web Mining

Goa University

ACM Summer School on Data Science, India June 2018

Won participation to attend the prestigious ACM Summer School organized by Robert Bosch Center for Data Science and Artificial Intelligence from IIT Madras.

EXPERIENCE

Research Assistant

Cognitive Systems Lab, University of Bremen, Germany May-July 2019

Trained an EMG-Speech system to operate on Silent Speech. Done by obtaining phone level alignments for EMG signals through Lip Reading using 3D Convolutional Neural Networks. Interned under the guidance of Prof. Tanja Schultz and presented my work to CSL members. Continuing my work remotely with CSL Bremen on enhancing the Lip-Reading model to obtain alignments of high accuracy. Exploring the possibility of a publication.

Chatbot Developer

Siam Computing, Chennai, India May 2018

Developed a customer friendly chatbot at Siam Computing, a start-up for a retail enterprise that used Google's Dialogflow. Additionally, worked on a chatbot that used Python NLP frameworks to answer contextual questions.

Content Development Intern (Deep Learning)

One Fourth Labs, IIT Madras, India Dec 2018

Curated Programming Assignments for an online course on Deep Learning for a start-up. Incubated by IIT Madras Research Park and founded by Professors of IIT Madras: Mitesh Khapra and Pratyush Kumar.

SKILLS

- Programming languages: (Proficient) Python, C, MySQL; (Familiar) R, MATLAB, Java, JavaScript
- Frameworks and Tools: Tensorflow, PyTorch, Keras, Git, NLTK
- Others: Machine Learning algorithms, Deep Learning, NLP, LaTeX.
- Strong analytical skills, communication skills.
- Thrive in a team environment and work well with others.

PUBLICATIONS

Journal Paper (Published)

Enhancing Predictability of Handwritten Document Content using HTR and Word Substitution, IJISME 2020, Prakash V., Moorthy K. & Jose J. T.

Book Chapter (Accepted)

Recent advancements on Sign Language Recognition, Computational Intelligence for Human Action Recognition, CRC Press, 2019. Working under the guidance of Prof. B.K. Tripathy.

PROJECTS

Unmanned Aerial System

Team Ardra was a participant in AUVSI SUAS'18, held in Maryland, USA. The team designed, integrated, and demonstrated an Unmanned Aerial System (UAS). Special contribution on interoperability connections, establishment and real time visualization of obstacles.

Text Summarization

Implemented a Text Summarizer using an Encoder-Decoder LSTM (Long Short Term Memory) Model in Python. The Encoder with an embedded input is followed by an LSTM layer to produce a fixed-length representation which is used by the decoder to generate the output summary.

Udacity PyTorch Challenge – Object Classification

Developed a basic neural model for the identification of the species of a flower relative to other 102 species. Built as a solution to Udacity PyTorch Challenge, model was able to beat the baseline scores.

Performance Analysis of E-Commerce websites based on Sentiments

The performance of the three major E-Commerce websites in India were evaluated based on sentiment behind Twitter reviews were classified as Positive, Negative or Neutral using Naïve Bayes algorithm (using Twitter API and Python's tweepy) and their performance was compared.

ACHIEVEMENTS

- Certificate of Accomplishment - 16th Annual Student Unmanned Air Systems Competition.
- Certificate of Appreciation - Oral Presentation on Data Security for IOT Based Healthcare System: A cryptographic approach ICWRS & ICAFEE 2018.
- Recipient of Special Student Achiever Award from VIT University Vellore (2018-19)
- Finalist in HSBC Artificial Intelligence Hackathon conducted by HSBC and IIT Madras.
- Udacity Bertelsmann Data Science Challenge Scholar for Udacity Nanodegree on Business Analytics.
- Winner of App Development Prototype Challenge conducted by IEEE EMBS at VIT Vellore.
- Qualified Zonal Computing Olympiad to contest for International Olympiad in Informatics (IOI).

EXTRACURRICULARS

- Participated in Women Techies Hackathon conducted by Google Developers Group at VIT Vellore.
- Core Committee Member of Association of Computing Machinery (ACM), Institution of Engineering and Technology (IET) and Women Techmakers (WTM).

VOLUNTEERING

Riviera 2018 – International Sports and Cultural Carnival

Volunteer for Guest Care Committee, February 2019

Helphen NGO

Volunteer for Elementary Education for under-privileged, October 2019

REFERENCES

Tanja Schultz, Professor of Cognitive Systems, University of Bremen, Germany +49 421 21864370
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Balakrushna Tripathy, Professor of Soft Computing, VIT University, Vellore, India +91 94893 43018
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