

Srihari Vemuru

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26/C IIIT Bangalore, Electronic City, Bangalore, India

INTERESTED RESEARCH AREAS

Computer Vision, Robotics, NLP, Machine Learning

EDUCATION

International Institute of Information Technology Bangalore

Integrated Master of Technology in Computer Science and Engineering; CGPA: 3.35/4.0

Bangalore, India

Expected July 2022

EXPERIENCE

Internship at Polytechnique University, Montreal, Canada

May 2021 - Aug 2021

Mitacs Globalink Research Internship

Prof. Nicolas Saunier

- Project description: Analysing the safety standards of Automated Vehicles using object detection and tracking.
- Trained DeepSORT and YOLO models on custom dataset and compiled HOTA and MOTA tracking results.

Internship at [LightMetrics](#)

June 2020 - Aug 2020

Start-up in Video Analytics for Road and Driver Safety

- Experimented with novel methods for road signs and vehicle detection.
- Helped with the integration of the successful models in the applications.

PROJECTS

Understanding Social Behavior in Dyadic and Small Group Interactions

Aug 2021(Ongoing)

ICCV Challenge

Prof. Dinesh B Jayagopi

- Two tasks: Recognising the personality of a person from multimodal input and forecasting a person's behavior based on previous input patterns.
- Master's thesis project

[Handling Complex Queries Using Query Trees](#)

Aug 2020

NLP Project

Prof. Shrisha Rao

- Created, with a team of two, a search engine middleware tool called PTGQ. PTGQ parses a complex search query into simpler queries, progressively queries them and outputs the final result.
- Performance of PTGQ tops the SoTA by more than 30% on a metric specifically formulated for the task. Work submitted to Springer IR Journal. Paper under review.

Inferring Student Engagement Using Unsupervised Domain Adaptation

Nov 2019

Computer vision project

Prof. Dinesh B Jayagopi

- Project description: Predicting the engagement levels of students in a classroom using visual recognition and unsupervised domain adaptation.
- Gained experience in Unsupervised Domain Adaptation using models like Joint Adaptation Network (JAN) and Wasserstein Generative Adversarial Networks (WGAN).

- ASMCBot stands for Affect Sensitive Medical ChatBot. The task was sponsored by the local state government in the hackathon to help people during COVID-19. Team went to the finals.
- Developed a medical portal with a BioBERT chatbot and hospital finder functionalities. The model uses BERT to represent questions and compares it with a question bank using cosine similarity.

SKILLS

- **Languages:** Python, C, C++, Java, SQL, JavaScript, CSS, HTML, Verilog(Hardware)
- **Frameworks:** PyTorch(ML¹), TensorFlow(ML), Keras(ML), FastAPI(SD²), Django(SD), Node.js(SD), React.js(SD), OpenCV(CV³), Darknet(CV), dlib(CV), Scikit-Learn(Vis⁴), Matplotlib(Vis), Seaborn(Vis)

ADDITIONAL EXPERIENCE AND ACHIEVEMENTS

- **ACM ICPC:** Qualified for ACM ICPC regionals level in 2021.
- **ACM India Summer School:** Volunteered in organising a workshop on algorithmic and theoretical aspects of machine learning during the summer of 2019.
- **Quadcopter Project under Robotics Club:** Worked in a team to build a drone intended to guide people during fire hazards.
- **Windrop:** Worked in a team to build a web platform to share files amongst trusted devices of the same user.
- **PLE Portal at Web Science Lab, IIIT Bangalore:** Integrated an NLP API to the front end UI.
- **Certificate from Ministry of Human Resource Development, Government of India:** For 10/10 CGPA in Central Board of Secondary Education(CBSE) 10th grade (High school).

¹Machine Learning

²Software Development

³Computer Vision

⁴Data Visualization