





## M BADRI NARAYANAN

 [mbadrinarayanan.github.io](https://github.com/mbadrinarayanan)  [MBadriNarayanan](https://github.com/MBadriNarayanan)  [mbadrinarayanan](https://www.linkedin.com/in/mbadrinarayanan)  
 [immbadri3@gmail.com](mailto:immbadri3@gmail.com)

### EDUCATION

**Sri Sivasubramaniya Nadar (SSN) College of Engineering (Autonomous),** **Aug 2018 – May 2022**  
**Affiliated to Anna University, Chennai, India**

*B.Tech. Information Technology*

**CGPA: 8.955 / 10.00**

**Courses:** Probability, Statistics, Discrete Mathematics, Data Structures, Algorithms, Operating Systems, Database Management Systems, Compiler Design, Machine Learning, Deep Learning, and Artificial Intelligence.

**Roles:** Head of the ML Division of PROCODE - official coding club of the Department of IT, Class representative for four years.

**Vidya Mandir Senior Secondary School, Chennai, India**  
*Grade 12, Computer Science Group*

**Jun 2017 – Jun 2018**  
**Grade: 94.4%**


### SKILLS



**Programming Languages:** Python, C, C++



**Frameworks and Tools:** PyTorch, TensorFlow, Keras, Git, Docker, AWS

**Libraries:** NumPy, pandas, scikit-learn, NLTK, spaCy, OpenCV

### PUBLICATIONS


**Fake News Detection using a Deep Learning Transformer Based Encoder-Decoder architecture**  [Code](#)  
**M Badri Narayanan, Arun Kumar Ramesh, Gayathri K S, Shahina A**  
*Submitted for review at Journal of Intelligent & Fuzzy Systems, 2022*  
*Journal indexed in Science Citation Index Expanded.*

**End-to-End Speech Recognition of Tamil Language**  [Paper](#)  [Code](#)  
**Mohamed Hashim Changrampadi, A Shahina, M Badri Narayanan, A Nayeemulla Khan**  
*Intelligent Automation and Soft Computing, 2022*  
*Journal indexed in Science Citation Index Expanded.*

**Sign Language Translation using Multi Context Transformer**  [Paper](#)  [Code](#)  
**M Badri Narayanan, K Mahesh Bharadwaj, G R Nithin, Dhiganth Rao Padamnoor, Vineeth Vijayaraghavan**  
*20<sup>th</sup> Mexican International Conference on Artificial Intelligence (MICAI), Mexico City, 2021*  
*Paper published in Springer Lecture Notes in Artificial Intelligence (LNAI).*  
*Won the 3rd best paper award.*

### EXPERIENCE

**QUALCOMM, Associate Engineer - AI/ML, Hyderabad, India** **Jul 2022 – Present**  
→ Working on the development and maintenance of the existing testing framework for SNPE (SnapDragon Neural Processing Engine).  
→ Working to automate the development and testing pipelines for running state-of-the-art deep neural networks efficiently and accurately on Snapdragon chipsets.  
**Advisor:** Mrs. Archana Patil, Engineer - Staff / Manager

**Solarillion Foundation, UG RA and TA (Part Time), Chennai, India**  [Website](#) **Feb 2020 – Present**  
→ Working on Terms of Service Classification, an NLP problem statement that uses a two-stage knowledge distillation DL approach on low-resource devices with cutting-edge architectures like BERT to find unfair Terms of Service terms.  
→ Lead the team which worked on Sign Language Translation which won the 3rd best paper award at the 20<sup>th</sup> Mexican International Conference on Artificial Intelligence (MICAI), Mexico City, 2021.  
→ Evaluated assignments and projects, Guided many students in Python, ML, DL and research phase.  
→ Lead the website development team and was part of the server management team.  
→ Wrote bots for posting office hours and creating polls.  
**Advisor:** Mr. Vineeth Vijayaraghavan, Director - Research and Outreach

**Mad Street Den, Machine Learning Intern, Chennai, India** **Mar 2021 – Jun 2022**  
→ Part of the NLP core group which developed a tool for document processing using an OCR engine, image processing, and NLP techniques to extract unstructured data and convert them to a structured format.

→ Built Computer Vision models to serve educational recommendations.

**Advisor:** Mr. Anand Chandrasekharan, Founder and CTO

**Proidian Info Tech Pvt Ltd, Summer Intern, Chennai, India**

**Jun 2020 – Aug 2020**

→ Applied unsupervised ML Algorithms to explore different patterns that affect a cricket match.

**Advisor:** Mr. Vijay Karthik, Founder and CEO

## SELECTED PROJECTS

---

**Terms of Service Classification**  [Code](#) **In Progress**

Two-stage knowledge distillation DL algorithm on minimal resource devices with cutting-edge architectures like BERT to find unfair Terms of Service clauses.

**Freelance Projects**  [Freelancer Profile](#) **Oct 2020 – Feb 2021**

Undertook projects from Freelancer.com in Natural Language Processing and Computer Vision. Completed a project with a US-based company “EasyComtec” to predict the ICD diagnosis code given a doctor report using Transformer architecture. I also developed a model to classify Arabic tweets into ham or spam.

**Clickbait Classification**  [Code](#) **2020**


Classifying clickbaits: articles with potentially misleading titles, using a state-of-the-art NLP architecture.

**Object Detection Using YOLO v3**  [Code](#) **2020**

Detecting everyday objects using the YOLO v3 network with a custom dataset.

**Machine Translator**  [Code](#) **2020**


English to French neural machine translator built using Transformer architecture in NLP.

**Flight Delay Prediction**  [Code](#) **2020**

Two stage machine learning engine to predict arrival delay of flights in minutes.

## SELECTED MOOC COURSES

---

**Natural Language Processing Specialization (Set of 4 Courses)**  [Course Certificate](#) **Oct 2020**


*Coursera and DeepLearning.AI*

**Master Computer Vision™ OpenCV4 in Python with Deep Learning**  [Course Certificate](#) **Oct 2020**

*Udemy*

**Training YOLO v3 for Objects Detection with Custom Data**  [Course Certificate](#) **July 2020**

*Udemy*

**TensorFlow Developer Specialization (Set of 4 Courses)**  [Course Certificate](#) **Jun 2020**

*Coursera and DeepLearning.AI*

**Deep Learning Specialization (Set of 5 Courses)**  [Course Certificate](#) **Jun 2020**

*Coursera and DeepLearning.AI*

**Python for Computer Vision with OpenCV and Deep Learning**  [Course Certificate](#) **Jun 2020**

*Udemy*

**Machine Learning**  [Course Certificate](#) **May 2020**

*Coursera and Stanford University*

## VOLUNTEERING AND RESPONSIBILITIES

---

→ Conducted classes in NLP and CV, evaluated ML, DL assignments and projects as part of PROCODE.

→ Part of the tech team for SSN MUN 2021.

→ Volunteered with Chennai Volunteers to teach spoken English classes for socio-economically weaker students.

## AWARDS AND HONOURS

---

→ Received the **Merit Scholarship** for my academic performance in the 3rd year of my undergraduate study.

→ Won the **3rd best paper** award for “**Sign Language Translation using Multi Context Transformer**” at the 20<sup>th</sup> Mexican International Conference on Artificial Intelligence (MICA), 2021.

→ Part of the collegiate cricket team which won the Manipal Academy for Higher Education (MAHE) cricket tournament.

→ Won the **2nd best project** for Computer Science in Grade 12.