

## 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)  +918220584258

### EDUCATION

**Sri Sivasubramaniya Nadar (SSN) College of Engineering, Chennai**

**Aug 2018 – Jun 2022**

*B.Tech. Information Technology*

**CGPA: 8.955**

**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**

**Jun 2017 – Jun 2018**

*Grade 12, Computer Science Group*

**Grade: 94.4%**

### SKILLS

**Programming Languages:** Python, C, C++,  $\text{\LaTeX}$

**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, K S Gayathri, A Shahina

*Submitted for review at IOS Press Journal of Intelligent & Fuzzy Systems, 2022*

**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 Journal, 2022*

**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 (MICA), Mexico City, 2021*

*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**

→ Completed the capstone project Terms of Service Classification, an NLP problem statement to uncover possibly unfair Terms of Service terms with the intention of publishing our findings.

→ 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 (MICA), Mexico City, 2021.

→ Evaluated assignments and projects, Guided 5+ 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

**Prodiان 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

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### Terms of Service Classification [Code](#) 2022

Identify unfair Terms of Service clauses using a two-stage DL algorithm with state-of-the-art architectures like BERT.

### 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.

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

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

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

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

### Portfolio Website [Code](#) 2020

Personal website created using HTML5, CSS3 and hosted using Github pages. Page currently live at <https://mbadrinarayanan.github.io>

### Hotel Mangement System [Code](#) 2019

Software to facilitate hotel room bookings and provide billing operations.

### Railway Ticket Reservation System [Code](#) 2019

Software to facilitate train ticket booking system using MySQL and Visual Basic Forms.

## SELECTED MOOC COURSES

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### 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*

### Natural Language Processing (NLP) with Python: 2020 [Course Certificate](#) Jun 2020

*Udemy*

### 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

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- 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.
- Volunteering with Chennai Volunteers to teach spoken English classes.

## AWARDS AND HONOURS

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- Received the **Merit Scholarship** for my academic performance in the 3rd year of my undergraduate study.
- Won the **3rd best paper** for “**Sign Language Translation using Multi Context Transformer**” at Mexican International Conference on Artificial Intelligence (MICAI), 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.