

## BADRI NARAYANAN MURALI KRISHNAN

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### EDUCATION

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

Jun 2018 – Jun 2022

B.Tech. Information Technology

GPA: 8.88 (Sem VII)

**Courses:** Probability, Statistics, Discrete Mathematics, Data Structures, Machine Learning, Deep Learning

**Roles:** Head of the ML Division of PROCODE - official coding club of 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:** PyTorch, TensorFlow, Keras, Git, AWS

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

### PUBLICATIONS

#### End-to-End Speech Recognition of Tamil Language Paper Code

Intelligent Automation and Soft Computing Journal, 2022

#### Sign Language Translation using Multi Context Transformer Paper Code

20<sup>th</sup> Mexican International Conference on Artificial Intelligence (MICAI), Mexico City, 2021

Won the 3rd best paper award.

### EXPERIENCE

#### Mad Street Den, Machine Learning Intern, Chennai, India

Mar 2021 – Present

→ 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

#### Solarillion Foundation, UG RA and TA (Part Time), Chennai, India Website

Feb 2020 – Present

→ 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 10 students in Python, ML, DL and research phase.

→ Lead the website development team and was part of server management team.

→ Wrote bots for posting office hours and creating polls.

**Advisor:** Mr. Vineeth Vijayaraghavan

#### Freelance Projects [Freelancer Profile](#)

Oct 2020 – Feb 2021

→ Undertook projects in Natural Language Processing and Computer Vision.

→ Built an NLP model to determine the ICD code diagnosis given a doctor's medical report.

#### 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

### SELECTED PROJECTS

#### Fake News Detection Code **In Progress**

Determining the integrity of a news source based on its title and its content using a novel NLP architecture.

#### ToS Classification Code **In Progress**

Identify unfair Terms of Service clauses using a two-stage DL algorithm with knowledge distillation using 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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- Won the **3rd best paper** for “**Sign Language Translation using Multi Context Transformer**” at Mexican International Conference on Artificial Intelligence (MICAI), 2021.
- Lead my team to the top 550 in the RSNA-MICCAI Brain Tumor Radiogenomic Classification Kaggle competition from over 1500 participating teams.
- 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.
- Captained the school cricket team.