

# 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: 8.92 (Sem VI)**

**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++, Java,  $\text{\LaTeX}$

**Frameworks and Libraries:** Git, AWS, TensorFlow, Keras, PyTorch, scikit-learn, NLTK, spaCy, OpenCV

**Web Development:** HTML5, CSS3, JavaScript

## 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**

→ Developed a tool using an OCR engine, image processing and NLP techniques to extract unstructured data and convert them to a structured format.

→ Part of the NLP core group, developing a text tagger to perform various tasks for fashion catalogs.

→ 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.

→ 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.

**Prodian 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.

**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.