### M BADRI NARAYANAN

### **EDUCATION**

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

Jun 2018 – Jun 2022

B.Tech. Information Technology

**CGPA: 8.955** 

<u>Courses:</u> Probabilty, Statistics, Discrete Mathematics, Data Structures, Machine Learning, Deep Learning <u>Roles:</u> 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

Grade 12, Computer Science Group

Jun 2017 – Jun 2018 Grade: 94.4%

## **SKILLS**

Programming Languages: Python, C, C++, LAT<sub>F</sub>X

**Frameworks:** PyTorch, TensorFlow, Keras, Git, Docker, 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**

# QUALCOMM, Associate Engineer - AI/ML, Hyderabad, India

**Jul 2022 - Present** 

- $\rightarrow$  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

### 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

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

Feb 2020 - Present

- $\rightarrow$  Lead the team which worked on Sign Language Translation which won the 3rd best paper award at the  $20^{th}$  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 the server management team.
- → Wrote bots for posting office hours and creating polls.

**Advisor:** Mr. Vineeth Vijayaraghavan, Director - Research and Outreach

### 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, Founder and CEO

# **SELECTED PROJECTS**

# Terms of Service 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.

# Fake News Detection using a Deep Learning Transformer architecture ? Code 2022

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

M Badri Narayanan Page 1 of 2 Curriculum Vitae

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 Ocode** 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 (7 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

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* 

#### 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.
- $\rightarrow$  Volunteering with Chennai Volunteers to teach spoken English classes.

# AWARDS AND HONOURS

- → Was awarded the **Merit Scholarship** for the academic year 2021 2022 during 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.