CURRICULUM VITAE

EDUCATION

Trinity College Dublin, University of Dublin, Ireland   **Sept 2023 - Aug 2024**

Msc Computer Science - Data Science specialization

College of Engineering Guindy – Anna University, India   **Aug 2016 – Apr 2020**

B.E. Electronics and Communication Engineering

- CGPA – 9.18/10
- Class – First Class with Distinction

Anna Adarsh Matriculation Higher Secondary School,Chennai

State Board of School Examinations, Tamilnadu

- Higher Secondary- Percentage: 95.9%   **Jun 2014 – Apr 2016**
- Secondary Education - Percentage: 97.8%   **Till 2014**

EXPERIENCE

Lead Engineer, HCL Technologies   **Nov 2020 – Aug 2023**

- Working as Full stack developer in mobile and web application development which involves development, integration and deployment of backend web server and frontend client technologies
- Worked as part of the Product development Team for Client in the Office Technology sector.
- Learned Object-Oriented programming and implementing different algorithms and design architectures.

SUMMER RESEARCH INTERN, Indian Institute of Technology, Bombay   **May 2019 - Jul 2019**

- Worked as Intern under Dr.Subhasis Chaudri in Vision and Image Processing Lab in Electrical Engineering department of IITB.
- Conducted extensive research about different convolution neural networks and developed a test dataset for the project.

RESEARCH INTERN, LUCAS TVS   **Jun 2018**

- Understanding the manufacturing process of different motors.
- Worked in the manufacturing line of Compressor Motors,Starter Motor,Wiper Motors.
- Good exposure to the general working model of a large industrial manufacturing company.

PROJECTS

PRODUCTION CONTROL DASHBOARD FOR XEROX PRODUCTION PRINTERS, Angular and ASP.NET

- Developed Dashboard control software for monitoring productivity of Production Printers.

- Implemented using angular as frontend and ASP.NET core as backend server.
- Integrated the system for scalability using multiple azure solutions such as redis cache, service bus etc.
- Implemented using Entity Framework core with SQL Server as Database.

CONVENIENCE KIOSK APPLICATION FOR XEROX PRINTERS, Angular and ASP.NET

- Developed an IOT based Angular Mobile Application that communicates with DOTNET Backend server to initiate different types of jobs in Xerox Printer equipment.
- Designed the system with secure and reliable payment functionality.
- MYSQL database has been used as a transactional database in the system.

LIVE IMAGE CAPTIONING TOOL FOR VISUAL IMPAIRED, Deep Learning

- Develop an end-to-end tool to capture images lively and generate a caption describing the image.
- Generated caption is converted to speech by the gTTS text-to-speech API.
- Used Convolutional neural network to identify the objects in the image and then Recurrent neural network (natural Language processing) model to form sentences using the objects identified earlier.
- Models – VGG16,Long-short Term Memory.

MULTIPLE IMAGE CO-SEGMENTATION, Deep Learning

- The aim of this project is to co-segment the same object present in multiple images. Implemented end-to-end deep learning model – using convolution neural network and attention model.
- Models –VGG16, Variational autoencoder, few shot learning.

LIVE OBJECT DETECTION DEVICE, Machine Learning

- Developed Object Detection model using ResNet to detect objects and deployed the trained model in Raspberry pi connected to camera.
- Models – ResNet, Artificial Neural Net.

SKILLS

- **Programming Languages:** C, C++, C#, Python,Matlab, TypeScript, Javascript, HTML, CSS, JQuery
- **Programming Knowledge:** Data Structures, Object-Oriented Programming, RXJS
- **Frameworks:** Angular, DotNet,Dotnet core, Pytorch, TensorFlow, OpenCV, Keras
- **Database Technologies:** SQL server, MySql,
- **Cloud Technologies:** Azure - App Service, Redis Cache, Service Bus, Azure SignalR, etc.
- **Other technologies:** CUDA, Matlab Image Processing Toolkit

CERTIFICATIONS

- Python for DataScience, AI and Development |IBM Skills network
- Machine Learning | Stanford University
- Google AI | Explore ML Workshop Beginner Level
- Google AI | Explore ML Workshop Intermediate Level
- PluralSight |Deep Learning in TensorFlow
- PluralSight |completed Angular - Intermediate track

LEADERSHIP

DEPUTY TREASURER, Electronics and Communication Association   **July 2019 – Apr 2020**
- Responsible for conducting national-level technical symposium VISION'20.

- Responsible for financial administration of the association.

ORGANIZING SECRETARY, Electronics and Communication Association July 2018 – Jun 2019
- Brought sponsors for the event.
- Conducted educational workshops and organized various other events.

ACHIEVEMENTS AND FELLOWSHIPS

- **SPOT AWARD –** Awarded by 'HCL Technologies' for innovative effort in Product Development.
- **BRAINSTORM –** Awarded first place in "BrainStorm" -Idea submission contest conducted by Biomedical Engineers Association
- **CHAOS THEORY –** Awarded second place in 'Chaos Theory' - in Kurushetra'19 - National level Techno management event.
- **SUMMER RESEARCH FELLOWSHIP –** Awarded by "Indian Academy of Science, Bangalore" for undergraduate research in area of interest (Computer Vision).

INTERNATIONAL AFFAIRS

SAKURA SCIENCE EXCHANGE PROGRAM, SHIZUOKA UNIVERSITY, JAPAN Feb 2020

- As Exchange student representing Anna University, learned about the universities teaching method, their ongoing research and students life
- Communicated with professors and students of Shizuoka University about recent trends and researches
- Gave paper presentation about Project - Live Image Captioning Tool for Visual Impaired.