

# ASWIN

📞 93453 95696 | ✉ aswin.selvakumaran@gmail.com | 🌐 Infi09 | 🌐 Infi-09 | 🌐 Infinity09 | 🌐 Infinity09 | 🌐 infi-09

## Education

<b>Bachelor Of Technology</b>	<b>St. Joseph's College Of Engineering</b>	<b>Nov 2020 - Current</b>
• Information Technology <b>CGPA - 9.34</b> (till 5th sem)		
<b>Higher Secondary - 12</b>	<b>Dalmia Higher Secondary School</b>	<b>Mar 2018 - Mar 2020</b>
• Computer Science <b>Percentage - 86.17%</b>		

## Experience

<b>Machine Learning Intern</b>	<b>Phosphene AI</b>	<b>Jun 2021 - Aug 2021</b>
<ul style="list-style-type: none"><li>• As a Machine Learning Intern in PhospheneAI, I worked on the project named HIFIC (High Fidelity Generative Compression) which is the Image Compression project implemented using Generative Adversarial Network and loopy Compression.</li><li>• The average bit per pixels achieved is 0.359bpp. Also built a web Application, which is integrated with Image Compression Model using Flask Server.</li><li>• During this time, I have earned more people's knowledge about how they handle Real Time Machine Learning problems and come up with solutions.</li></ul>		

## Projects

### Doctor Prescripton Handwritten Recognition 🔗

- Built a handwriting recognizer to recognize the names of medicines from a doctor's prescription using Artificial Intelligence and bring out 60% accuracy at the final hyperparameters tuning.
- The Model is implemented using Convolutional Neural Network and accelerated with Recurrent Neural Network to store past information of the data points. The CPU utilization was about 1.5 hours for 30 epochs while training the dataset.
- The 3rd Module is Integrating the Model with Flask to develop on the Web Application . [ **PyTorch, RCNN, Flask, Python** ]

### Speech Emotion Recognition 🔗

- Build a Deep learning model that could detect emotions like happy, anger, depressed, neutral like upto 8 emotions from the speech.
- This Classification Model is designed using **CNN** with Multilayer Perceptron and upgraded with RNN to feed forward the past info of the data the accuracy is quite around 95% .
- This dataset used are RAVDESS, CREMA, TESS, SAVEE which includes around 15000 audio file input from 24 different actors and their record short audios in 8 different emotions [ **PyTorch, CNN, LSTM (RNN), Flask, Python** ] .

### High Fidelity Generative Compression 🔗

- Created a learnable image compression model with Generative Adversarial Network which is Deep Learning based M&S Hyperior (2).
- The model is capable of compressing images of arbitrary spatial dimension and resolution up to two orders of magnitude in size, while maintaining perceptually similar reconstructions. The average bit per pixel 0.359bpp [ **PyTorch, OpenCV, M&S Hyperior** ]
- Outputs achieved tend to be more visually pleasing than standard image codecs operating at higher bitrates. The Accuracy Match is 70%.

### Yoga Recommendation System 🔗

- One solution for a project that aims to improve people's physical and mental health using machine learning-powered recommendations
- Totally 12 health data of the user are observed and passes to model which recommend asanas based on the user's medical conditions.
- This model reached around 95% accuracy on test data and recommend some common and specialized yoga asanas for them and the losses during test data is around 0.01. Integrated with flask Web Applications. [ **Python, Scikit-Learn, SVM, Decision Tree, Flask** ]

## Cryptocurrency Dashboard using PowerBI

- Developed an interactive cryptocurrency dashboard using Power BI, which included real-time data visualization, trend analysis, and actionable insights to optimize investment decisions.
- Utilized technical expertise in Power BI, data cleaning, and transformation to build a comprehensive cryptocurrency dashboard that tracked various metrics such as market capitalization, trading volume, and price fluctuations.
- Demonstrated a strong understanding of the cryptocurrency market and its underlying technology by building a Power BI dashboard that tracked multiple cryptocurrencies, exchanges, and mining metrics, providing valuable insights to stakeholders. [ **Power BI, Data Cleaning, Data Transformation** ]

## Certificates

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- Amazon Web Services Cloud Practitioner , Udemy , 2023
- Developer Virtual Experience Program , Accenture , 2022
- Problem Solving (Intermediate) , Hacker rank , 2022
- Deep Learning , Jovian , 2022
- Internship & Job Preparation , InternShala , 2022
- Data Science , InternShala , 2022
- Python For Data Science And Machine Learning Bootcamp , Udemy , 2021
- Python For Machine Learning & Data Science Masterclass , Udemy , 2021
- Python , Indian Institute Of Technology Bombay, 2021

## Tech Stack

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**Technical Skills** -> Python , Java , C++ , JavaScript , HTML , CSS || **RDBMS** -> MySQL

**Frameworks & Services** -> PyTorch , TensorFlow , Flask , Keras , Pandas , NumPy , Scikit Learn , Matplotlib , OpenCV , YOLO , Librosa , Amazon EC2 , Amazon S3 , Amazon ELB

**Tools** -> Power BI , Amazon Web Services (Beginner)

## Achievements and Honors

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- **AI/ML Lead** in the **Google Developer Student Club** , 2022 - 2024
- **3rd Winner**: Won 3rd prize in the **National Level Aadhar Hackathon (UIDAI)**. Team Null Pointer Exception , 2021
- **Top Performer** in **Smart India Hackathon (National Level Hackathon)** , 2022
- **Top 5** around **70 teams** in **Hackbites** Hackathon organized by Global Academy Of Technology, 2022
- **Top 30** out of **500 students** for **Coding Hackathon** conducted by **CSI Chennai Chapter** at Rajalakshmi Engineering College , 2023
- Selected for **Grand Finale** in **Toycathon** as a Team Lead which was conducted by **Indian Government** , 2021
- **Top Performer** in the **Code Red - Synsara 2022**, conducted at Sri Sairam Engineering College

## Intra College Technical Events

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- Under the **Google Developer Student Club**, I, as an **AI/ML lead**, facilitated educational sessions on **Google's TensorFlow** for 3rd , 2nd and 1st year student and conducted a **Coding Hackathon** specifically for 1st and 2nd year students.
- I provided a lecture to 150 3rd-year students on **TensorFlow** and fundamental **Git commands**.
- As a member of the **CSI core team** in my college, I and my seniors organized a coding hackathon for students from all over Chennai.
- **Finalist** in **Technical Hackathon** which was conducted by the seniors of St. Joseph's College Of Engineering