Aaptha Boggaram

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EDUCATION

PES University, Bangalore, India, **Bachelor of Technology in Computer Science & Engineering** | GPA: **4 / 4** | May 2023

Relevant Coursework: Data structures, Algorithms, Networks, Compiler Design, Computer Architecture & Organization, Operating Systems, and Software Engineering

TECHNICAL EXPERIENCE

Continental Autonomous Mobility, India — Jan 2023 - Present

Intern (Radar Division)

- Worked on "Road Type Classification & Road Border Estimation" for Continentals' Advanced Radar Sensors as a **core developer**. Developed efficient algorithms and achieved an **18%** increase in performance from their present work.
- Constructed multiple datasets by pre-processing and combining raw data signals extracted from radars fitted to cars.
- Aided in code debugging and wrote scripts for various tasks during the tenure of the internship.

PES University, India — Aug 2022 - Dec 2022

Teaching Assistant (Web Technology - I Course)

Prepared test questions, generated and evaluated assignments, and assisted students with lab exercises.

Centre for Heterogeneous and Intelligent Processing Systems, India — May 2021 - Dec 2021

Research Assistant

Designed **lightweight** machine learning models for effective cardiac anomaly detection on wearable devices. Implemented and tested the models on cutting-edge microprocessors with a benchmark accuracy. Project link: https://www.chips.pes.edu/projects.

LivNsense Technologies Pvt Ltd, India — June 2021 - Sept 2021

Project Intern

Independently implemented a neural network that can be used in real-time for pothole detection on the Arduino Nano BLE sense microprocessor. Reduced the model size by up to **94.5%** retaining a respectable accuracy for real-time detection.

PROJECTS

***RealSign*: Bidirectional Sign Language Translation**

Led a team of 4 and implemented an app for effective bidirectional real-time Indian sign language translation. Trained a Siamese Neural Network on a manually (self) collated database containing **34000+** images (**2nd Largest ISL database** in domain).

Covid Detection using Radiographic Images of the Lung

Designed and implemented an effective neural network with 98% accuracy and tested it on various benchmark databases.

PUBLICATIONS

- "RtTSLC: A Framework for Real-time Two-handed Sign Language Translation." Smart Computing and Communication: 7th International Conference, SmartCom 2023, Jaipur, India, January 24-25, 2023, Proceedings of SmartCom 2023 (under publication. Scheduled publication date: 9th July).
- "Sign Language Translation Systems: A Systematic Literature Review." International Journal of Software Science and Computational Intelligence (IJSSCI) 14, no. 1 (2022): 1-33. (http://doi.org/10.4018/IJSSCI.311448).
- "Cardiac Anomaly Detection for Wearable Devices." 13th HiPC Student Research Symposium (SRS), Bangalore, India, 2021.

TECHNICAL SKILLS

Programming Languages: Python, C++, C, Java, SQL, HTML, JavaScript, MATLAB

Programming Skills: Machine Learning, Artificial Intelligence, Data Science, Big Data, Batch File Programming

Tools & Software: Git, Latex, CMake, Confluence, Docker, Jira Software, Microsoft Office

ACHIEVMENTS & ACTIVITIES

Received merit scholarship **thrice** (Given to top 20% of the students) for Academic Excellence.

Mentored **2** teams as their Capstone Project guide.

Active teaching volunteer for Youth for Seva**,** an NGO devoted for improving societal well-being.

Elected as Class Representative **4 times in a row**.

Competed in Hacktoberfest challenge (2019 & 2020), Hashcode (2021), and CII Future of Health Hackathon (2021).