

Surendra Allam

Lead Application Engineer

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SUMMARY

Experienced **AI/ML Lead Application engineer** with expertise in application development for **Vision-DSP**, on the images captured from the camera connected to SoC and applying filters. Skilled in collaborating with Customers to resolve their issues and vendors to overcome technical challenges. Managed a team of 8 in developing applications for **SoC(RISC-V)** which involves AI/ML models with Vision DSP. Published and presented research findings on AI/ML at IEEE conferences, demonstrating expertise in the field of AI/ML for DSP. Recognized as **Eccentric Employee** of the year **2020-21** and achieved **Best Team Lead** for the year **2022-23**.

KEY SKILLS

ML/DL

C/C++

Python

TensorFlow

Computer Vision

Image Processing

Model Development

EdgeAI

DSP

SoC

EMPLOYMENT HISTORY

Lead Application Engineer Dec '19 - Present
Exaleap Semiconductors Pvt Ltd Bangalore,

1. Successfully led a team of 8 in **developing applications for Vision-DSP** platforms as per customer requirements.
2. Possess greater coding experience with **C/C++ in designing applications** on Edge devices and **Python for off-line model training**.
3. Built custom models for validation on SoC platforms. Implemented these models and meticulously analyzed results to **enhance model performance** from **90% to 94%**.
4. Developed and executed **comprehensive test cases to validate the performance** and functionality of Vision-DSP on SoC.
5. Proficiently utilized **TensorFlow, PyTorch, and Caffe** frameworks. Demonstrated a strong understanding of neural network architectures, including **MobileNet** and **YOLO**.
6. Designed multiple applications with **image processing, Computer Vision** and **Convolution Neural Networks**
7. Collaborated with **cross-functional teams** to ensure seamless communication between customers and developers.
8. Effectively collaborated with the Operations team in China to resolve client issues promptly, resulting in heightened client satisfaction.
9. Developed and maintained **robust relationships with hardware and IP vendors**, enabling efficient troubleshooting and resolution of technical challenges.
10. Published and presented research findings on artificial intelligence and machine learning at an **IEEE conference**, showcasing expertise in the field.

Embedded Engineer Jul '18 - Dec '19
Safepro Video Security Research Labs Bangalore

- Led and managed a team to design a **Proof of Concept (PoC)** for an **Under Vehicle Surveillance Robot**
- Developed hardware motor drivers and Battery Management System, and created software to control the device through a mobile app
- Designed electronic circuit for the whole PoC
- Analyzed the performance of the PoC on **Raspberry Pi, Nvidia Jetson's Nano, and TX2** boards

Design Engineer May '16 - Jun '18
GloWorld Energy Pvt Ltd Bangalore, Gurgaon

- Drove product design and enhancement efforts for **Micro-Watt solar home appliances**
- Modified the design of the **home lighting system** which improved the lighting by **50%** & **2 hours** improved battery backup

EDUCATION

Master of Technology, Power Electronics Sep '13 - Nov '15
B.M.S.College of Engineering Bangalore

CAREER ACHIEVEMENTS:

- Published papers at international conferences **IEEE** and **De Gruyter**
- Recognized as **Eccentric Employee** of the Year **2020-21**
- Achieved **Best Team Lead** for the year **2022-23**
- Contributor to GitHub's **Arctic Code Vault**.
- Achieved a **reputation of 61, 8 Bronze Badges**, and an **impact of 61K** on **StackOverflow**.