TATA ELXSI

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AI-Based Speech Recognition

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CASE STUDY

NEURAL NETWORK BASED SPEECH/ AUDIO RECOGNITION ON EDGE DEVICE

Enabling wake word detection on Edge Device

Scope

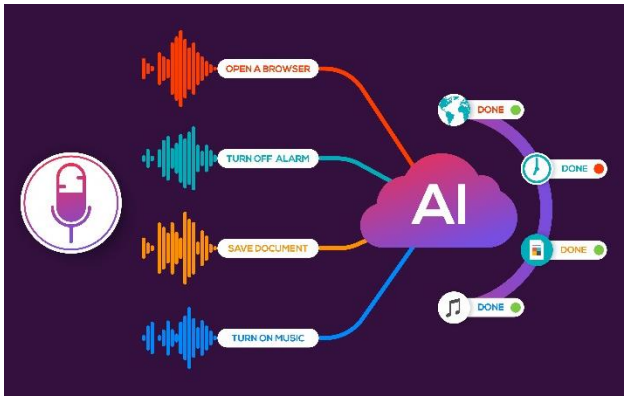
- Developed neural network for target wake word detection
- Ported trained neural network onto proprietary hardware platform
- Trained AI model with limited audio sample datasets
- Calibrated the hardware parameters to improve the performance

Challenges

- Neural network to be developed using only proprietary API's
- AI model architecture developed using only Dense Layer

Tools & Framework

- Proprietary API's for Pre & Post processing & AI model development



Market	Delivery model	What's Next
Consumer Electronics	Fixed Bid	Advanced Use Case Implementation