

Tutorial Summary

- **DNNs are a critical component in the AI revolution**, delivering record breaking accuracy on many important AI tasks for a wide range of applications; however, it comes at the cost of **high computational complexity**
- **Efficient processing of DNNs** is an important area of research with many promising opportunities for innovation at **various levels of hardware design, including algorithm co-design**
- When considering different DNN solutions it is important to **evaluate with the appropriate workload** in term of both input and model, and recognize that they are **evolving rapidly**.
- It's important to consider a **comprehensive set of metrics** when evaluating different DNN solutions: **accuracy, speed, energy, and cost**

Resources

- **Eyeriss Project:** <http://eyeriss.mit.edu>

- Tutorial Slides
- Energy modeling

V. Sze, Y.-H. Chen, T.-J. Yang, J. Emer,

***“Efficient Processing of Deep Neural Networks:
A Tutorial and Survey,”***

Proceedings of the IEEE, Dec. 2017

***Synthesis Lecture Book coming soon!
(Estimate end of summer)***

- Mailing List for updates

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