


# Tutorial Summary

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- **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

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- **Eyeriss Project:** <http://eyeriss.mit.edu>
  - Tutorial Slides
  - Benchmarking
  - Energy modeling
  - Mailing List for updates  Follow @eems\_mit
    - <http://mailman.mit.edu/mailman/listinfo/eems-news>
  - **Paper based on today's tutorial:**
    - V. Sze, Y.-H. Chen, T-J. Yang, J. Emer, “*Efficient Processing of Deep Neural Networks: A Tutorial and Survey*”, arXiv, 2017