Background
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• 2010: Greece → UC Berkeley

• 2016: PhD with Jitendra Malik

• 2016-2018: PostDoc at FAIR

• Now: Research Scientist at FAIR
Background

• I have written **non deep learning** papers
• I have had my papers **rejected**
• Many of my research ideas **did not work**
• I have collaborated with **more than 20 people** (UC Berkeley, FAIR, Google, INRIA, Georgia Tech, CMU, …)
• I have served on many **program committees**
• I have served as an **area chair** for CVPR 2018
• I try **not to think** about research one day a week
• I value a healthy **work/life balance**
Principles of Research

Quality
Your work reflects yourself and subsequently your community
Principles of Research

Quality

Honesty

• We operate on the assumption that everybody is honest
• Utopian society
• It is our responsibility to preserve this
Principles of Research

Quality

Honesty

Openness
  • We share papers, code, models, dataset
  • We collaborate
Principles of Research

Quality

Honesty

Openness
• We share papers, code, models, datasets (open-sourcing)
• We collaborate (collaborations)
Part A: Open-Sourcing
Examples of Open Source Projects

**Datasets**
PASCAL VOC, ImageNet, MS COCO, …

**Libraries**
VLfeat, Caffe(2), (Py)Torch, Tensorflow, …

**Models**
DPM, AlexNet, R-CNN, ResNe(X)t, Mask R-CNN, …
Open-sourcing

A scientific community without open-sourcing:

• Every group has to collect their own dataset
  (~1 year to collect/annotate/curate ImageNet)

• Every group has to (re)implement and (re)train their own models
  (~ 1 year to implement Caffe from scratch)
  + (~ ½ year to implement and test ResNe(X)t)

  = 2 ½ years to implement a baseline (almost half a PhD career)
Open-sourcing

Is this **progress**?

- Benchmarking & comparisons become impossible
- Baseline implementations become noisy/inaccurate
- Not all groups have the resources to do this

→ chaos
Incentives for Open-sourcing

**Short term**

- CVPR publications should be accompanied by code & models
- Community awards for Best Open-Source Projects
- Citation/star counts for open source projects
- Professors, group leads, companies should reward open-sourcing

**Long term**

- Career evaluations (i.e. tenure, promotions) should be based on open source projects
Part B: The merits of collaborating
Collaborations

Collaborations for researchers are the equivalent of travelling
Collaborations

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Collaborations

Collaborations for researchers are the equivalent of travelling

- You open your research horizon
- You get to experience different work styles
- You learn to listen, argue and adjust
- You learn to work with different personalities
- You usually get exposed to different set of problems

→ growth
Collaborations

Collaborations are bidirectional

Junior Researchers ➔ Senior Researchers ➔ Junior Researchers
The merits of Collaborating

For **Junior Researchers**
- They learn to work in a different environment
- They experience different work styles than their PhD advisor
- It’s a chance to work in different topics
- They mature

For **Senior Researchers**
- They get to train the next generation of scientists
Incentives for Collaborations

• Explicitly reward collaborations during career evaluations
• Reward collaborative projects outside one's comfort zone (high-risk projects)
• Cross-university or university-industry student co-advising
Conclusions

A good citizen of CVPR is the one that pushes the field forward

• High quality research work
• Bringing researchers closer together
• Sharing with the community

If you are a junior scientist, be open to collaborations with peers
If you are a senior scientist, mentor juniors