From: Igor Ganichev <iga@google.com>

To: Tomasz Kornuta <tkornut@us.ibm.com>

Cc: Robert Guangyu Yang <gyyang.neuro@gmail.com>, vincent albouy

<vincent.albouy@ibm.com>

Date: Tuesday, September 10, 2019 09:46AM

Subject: [EXTERNAL] Re: COG Research

For Follow up: Normal Priority.

Here are the numbers for the hard version:

GoShapeOf 0.235312506557

GoColorOf 0.236562505364

CompareShapeGo 0.260788798332

CompareColorGo 0.265039235353

CompareColor 0.501268386841

ExistLastShapeSameColor 0.50385415554

ExistLastColorSameShape 0.504374980927

ExistColorSpaceGo 0.504474818707

CompareShape 0.504706263542

ExistShapeSpaceGo 0.507054269314

AndCompareShape 0.507546007633

AndCompareColor 0.513917148113

ExistSpaceGo 0.552960216999

ExistLastObjectSameObject 0.602609395981

ExistGo 0.651248276234

ExistColorGo 0.683356702328

SimpleCompareColorGo 0.683469951153

ExistShapeGo 0.683690845966

SimpleCompareShapeGo 0.703966498375

ExistShapeOf 0.726766884327

ExistColorOf 0.73111063242

avg 0.74200797081

AndSimpleCompareShape 0.779467403889

AndSimpleCompareColor 0.781968832016

ExistColorSpace 0.891612827778

AndSimpleExistShapeGo 0.895784258842

ExistShapeSpace 0.898623526096

ExistColor 0.898763000965

GetShapeSpace 0.903381228447

AndSimpleExistColorGo 0.90595382452

GetColorSpace 0.923373281956

ExistShape 0.92553383112

ExistSpace 0.928750753403

GoColor 0.964637339115

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GetShape 0.971285462379 GoShape 0.973471820354 GetColor 0.97975975275 Go 0.992426991463 Exist 0.993033826351 SimpleCompareColor 0.993230044842 SimpleCompareShape 0.993318498135 AndSimpleExistGo 0.99582028389 SimpleExistGo 0.99606770277 SimpleExistShapeGo 0.998111963272 SimpleExistColorGo 0.999895811081

Mean: 0.7420079714722103

On Tue, Sep 10, 2019 at 4:54 AM Tomasz Kornuta <tkornut@us.ibm.com> wrote:

Hi all,

Thanks, this is really helpful. And if you could dig out the results for the Hard dataset it would be simply AWESOME! ;)

Thanks, Tomasz

Sent from IBM Verse

Igor Ganichev --- [EXTERNAL] Re: COG Research ---

From: "Igor Ganichev" < iqa@qoogle.com>

To: "Robert Guangyu Yang" <<u>gyyanq.neuro@qmail.com</u>>, vincent.albouy@ibm.com,

tkornut@us.ibm.com

Date: Mon, Sep 9, 2019 17:32

Subject: [EXTERNAL] Re: COG Research

Hi guys,

I received a couple of requests at the same time. Replying to all.

I did not find the actual numbers we used in the paper, but redownloading some TensorBoard summaries from some runs. I got these for best canonical results:

CompareShapeGo 0.638224363327 CompareColorGo 0.677678883076 AndCompareShape 0.79989439249

AndCompareColor 0.81871342659

ExistSpaceGo 0.846724629402

ExistShapeSpaceGo 0.871897995472

ExistColorSpaceGo 0.919593393803

ExistGo 0.941202878952

ExistShapeGo 0.950391590595

ExistColorGo 0.953208208084

SimpleCompareColorGo 0.95672494173

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SimpleCompareShapeGo 0.956992268562

AndSimpleExistShapeGo 0.972418189049

AndSimpleExistColorGo 0.980001330376

ExistLastObjectSameObject 0.980163097382

GetShapeSpace 0.981132090092

GetColorSpace 0.981707334518

ExistShapeSpace 0.983783781528

ExistSpace 0.988636374474

ExistColorSpace 0.988826811314

ExistColor 0.989583313465

CompareColor 0.99206250906

CompareShape 0.994047641754

AndSimpleCompareColor 0.996592283249

ExistColorOf 0.996911764145

GoShape 1.0

GetShape 1.0

SimpleCompareColor 1.0

SimpleCompareShape 1.0

GoColorOf 1.0

SimpleExistShapeGo 1.0

ExistShapeOf 1.0

SimpleExistGo 1.0

AndSimpleCompareShape 1.0

ExistLastColorSameShape 1.0

GoColor 1.0

SimpleExistColorGo 1.0

ExistLastShapeSameColor 1.0

AndSimpleExistGo 1.0

ExistShape 1.0

GetColor 1.0

GoShapeOf 1.0

Exist 1.0

Go 1.0

I need to run now, but I think I found some traces of COG HARD runs as well. I should be able to extract the same info from them tomorrow morning.

Hope this helps, Igor

On Mon, Sep 9, 2019 at 4:08 PM Robert Guangyu Yang < qyyang.neuro@gmail.com> wrote: Hi, Igor,

Hope you are well!

As you know, I don't have any result that's not in the paper. Could you answer this question forwarded here? Thanks!

Robert

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----- Forwarded message -----

From: vincent albouy < vincent.albouy@ibm.com >

Date: Mon, Sep 9, 2019 at 6:30 PM

Subject: COG Research

To: < robert.yang@columbia.edu >

Hi Robert,

I am Vincent Albouy from IBM Research in Almaden Research Center, California.

I am working on the COG Dataset and I would like to know if you have a full results table Canonical + Hard fly task type.

It would be very helpful.

Many thanks,

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Robert Guangyu Yang Postdoctoral Research Scientist and Simons Junior Fellow Zuckerman Institute, Columbia University

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