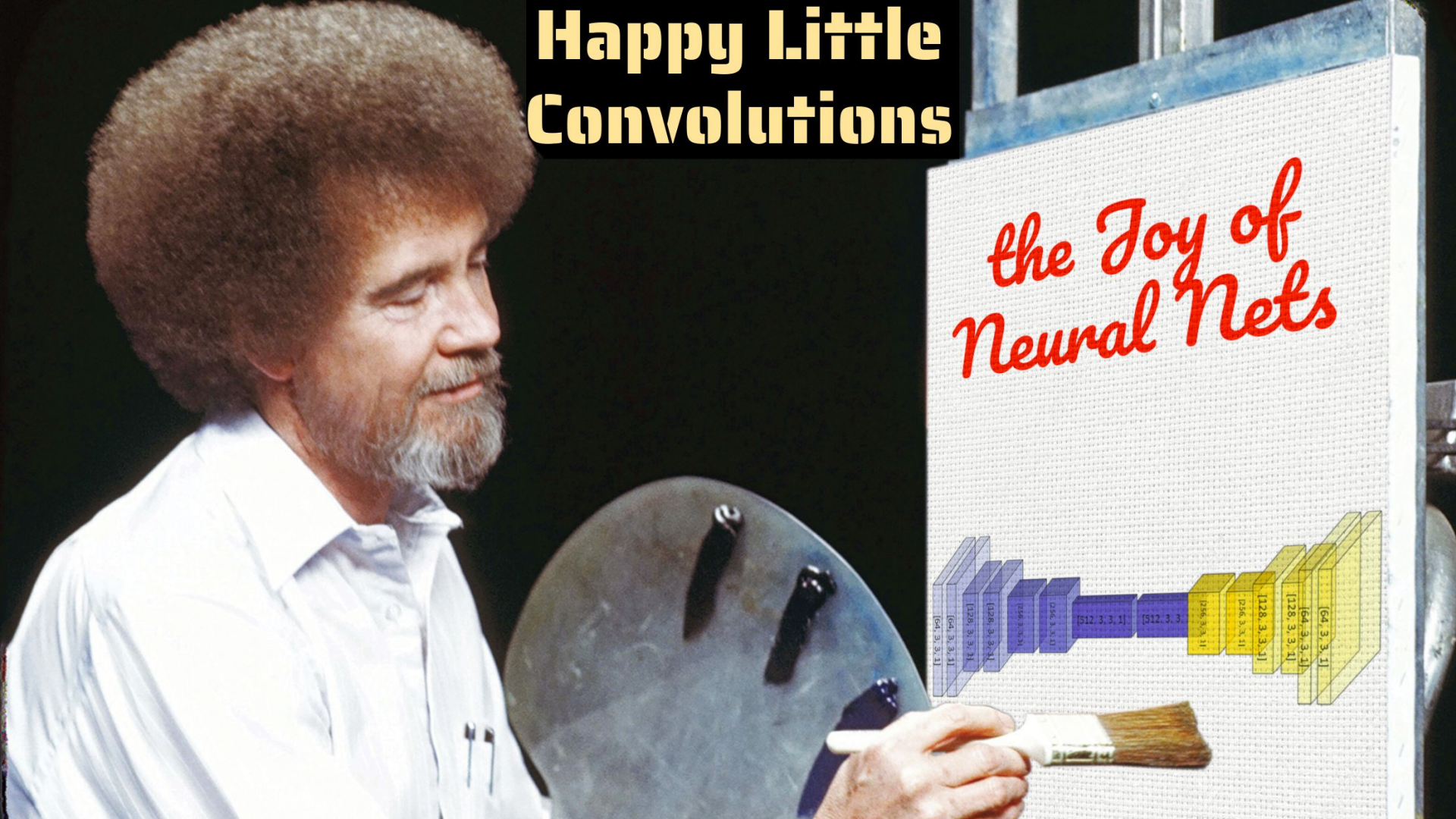
Happy Little Convolutions



Goals/Inspiration:

- Educational:
  - Neural Networks
  - Cloud Computing
  - Tensorflow

- Practical:
  - Photos → Bob-Ross-style paintings
  - Larger results than article/paper
  - Contribute a dataset

Monet → photo

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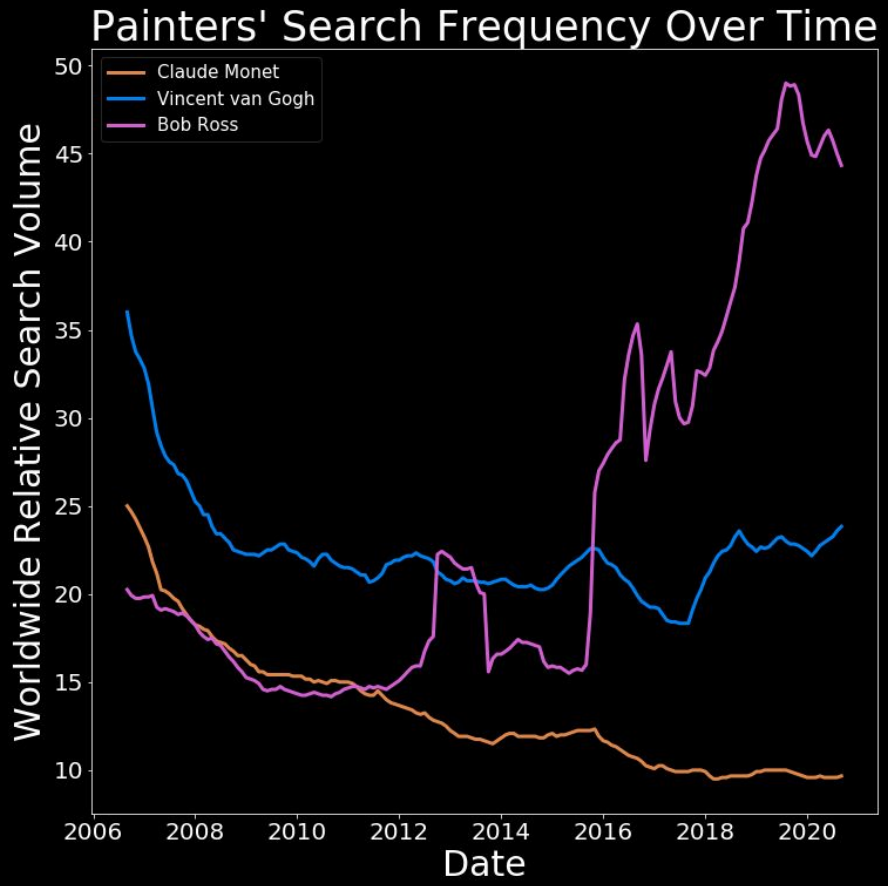
  - Gain online popularity?



Data Sourcing:

Original Data Sourcing:

TwoInchBrush

~2500 fan/student-produced paintings in Bob Ross style

r/bobross

~60 better fan/student-produced paintings in Bob Ross style

Batch processing image editor

Workflow and Tools:

TwoInchBrush

Machine learning library

r/bobross

Cloud computing platform

Google Cloud Platform

Workflow: *Learning too Fast!*

Workflow: *Transition to Bob Ross*

Claude Monet

Bob Ross

Workflow: *CycleGAN Results*

Workflow and Tools:

TwoInchBrush

r/bobross

Google Cloud Platform

vast.ai

Less GPU-stingy cloud computing platform

Workflow: *Upscaler Results*

Workflow and Tools:

TwoInchBrush

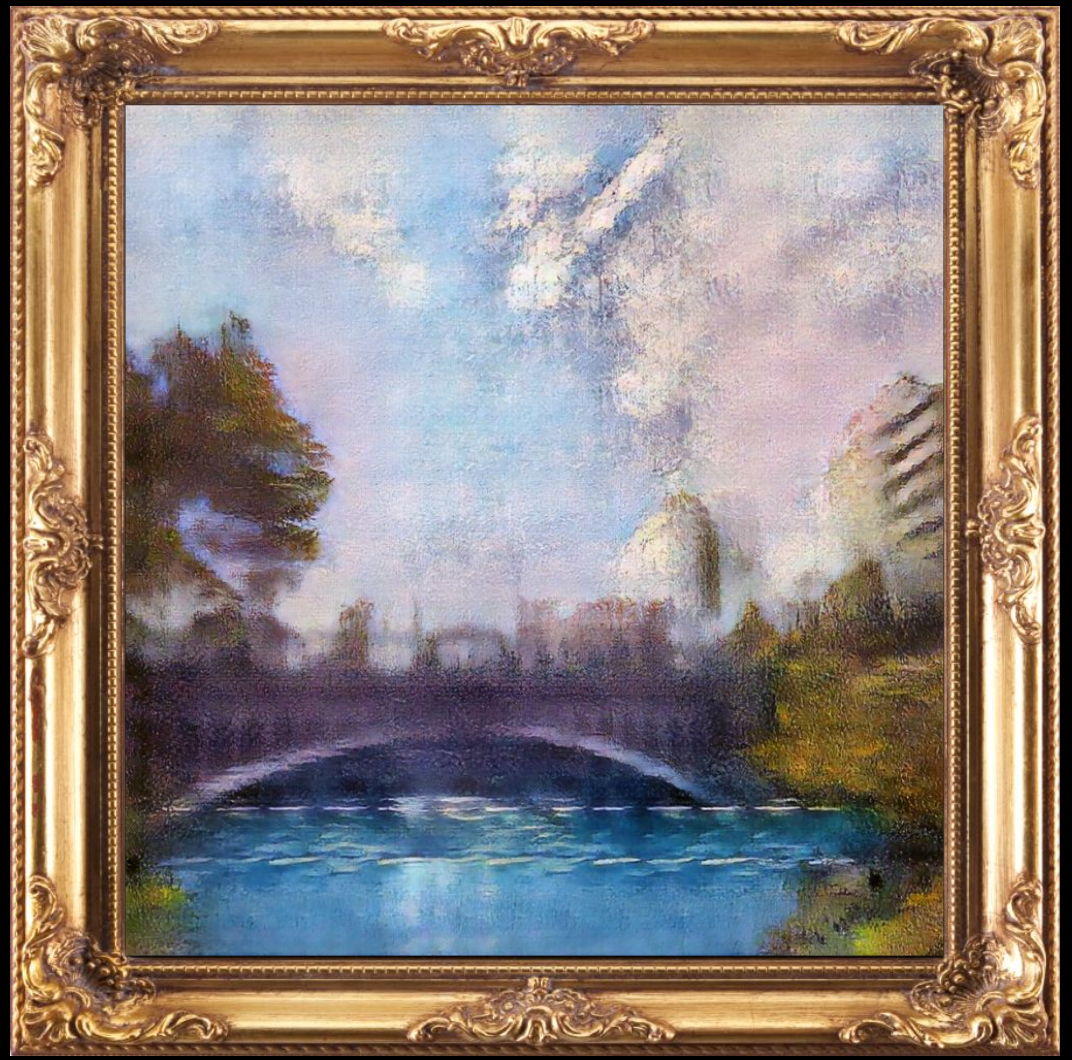
r/bobross

Google Cloud Platform

python™

vast.ai

Final Results:



Future Work:

- Higher resolution
- Longer Training
- Web App
- Tensorflow Dataset

Thank you!

Sam Mize
Linkedin
Email
GitHub

Acknowledgements:

Unpaired Image-to-Image Translation using Cycle-Consistent Adversarial Networks

Transforming the World into Paintings with CycleGAN

TwoInchBrush

r/bobross

Google Trends

Wikipedia: Bob Ross

Wikipedia: The Joy of Painting

Appendix: