Harrish Thasarathan

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|Github: https://github.com/Harry-Thasarathan |Google Scholar: https://bit.ly/32OeQhl |

EDUCATION

B.S. Computer Science - Co-op

Ontario Tech University (University of Ontario Institute of Technology)
Graduating: 2021, Oshawa ON

SKILLS

Python • PyTorch • Tensorflow • Java • C++ • Flutter • Git Android • LATEX • Data structures • Software Design Patterns

COURSEWORK

Data Structures
Analysis and Design of Algorithms
Scientific Data Analysis
Mobile Development
Graphics and Visualization
Software Design and Analysis,
Software Systems Dev. & Integ.

PROJECTS

Video Colorization with Generative Adversarial Networks
Python | PyTorch | NumPy | Scikit-Learn | OpenCV May. 2017 – Present

- Performed image to image translation of grayscale/line-art frames to fully colored frames with Conditional GANs using residual blocks, patch based discriminators and perceptual loss
- Developed architecture modifications to preserve Spatio-Temporal information in video
- Led to publication at ICCV'19 workshop (https://bit.ly/32OeQhl) and at CRV'19 (https://arxiv.org/abs/1904.09527)

Full Stack Group Video Chat Mobile Application
Flutter | Firebase| Dart | Agora February 2019

- Led 4 person team develop a full stack android mobile application to enable group video chat and text messaging with a scalable cloud database backend
- Released as open source project receiving 99 stars on Github

Edge-Informed Single-Image Super Resolution
Python | PyTorch | NumPy| SciPy | OpenCV December 2019

- Developed a two-stage structure guided inpainting model for single-image super-resolution that leverages deep generative neural networks to jointly optimize image content and structure
- Led to publication (https://arxiv.org/abs/1909.05305) at ICCV'19 workshop in Advances in Image Manipulation

Deep Learning User Interface Demo
Java | DL4J | Python December 2018

- Collaborated with students on building a Deep Learning Demo UI to introduce students to computer vision and machine learning techniques for recognition and generation tasks

EXPERIENCE

Research Fellow, Vision Lab Aug. 2017 – Present
Ontario Tech University (University of Ontario Institute of Technology), Oshawa ON

- Conducted original research in the area of GANs for assisting humans in animation colorization and image editing
- Developed tools for animators to leverage state of the art models to speed up workflows creating interest from animation studios
- Delivered multiple presentations to both technical and non-technical crowds on deep learning and deep generative modelling