Paras Kapoor

1786 28 ST NW Edmonton, Alberta, Canada T6T 0S7
514-583-6070 pkzhigh@gmail.com linkedin.com/in/pkzhigh github.com/pkhigh

Technical Skills

Machine Learning: PyTorch, Tensorflow, Scikit-Learn, OpenCV, GANs
Technologies/Frameworks: Linux, Jenkins, Git, Docker, AWS, Jira
Developer Tools: VS Code, PyCharm, JupyterLab
Languages: Python, SQL, C++

Publications

TinyStarGAN v2 **BMVC 2021**
Distilling StarGAN v2 for Efficient Diverse Image Synthesis for Multiple Domains (link) *Paras Kapoor, Tien. D. Bui*

Experience

Jumio | *Machine Learning Engineer* **May 2021 – Ongoing**

- Monitor and improve multiple ML services required in improving the quality and usability of automatic ID verification products globally.
- Maintain and develop both Pytorch and Tensorflow codebases for training different models for server and edge devices.
- Developing AWS Sagemaker training and inference pipelines for automated training and deployment.
- Always quick with doing POCs on new technologies like Sagemaker Neo, ONNX inference etc. which can help improve latency of our ML services.
- Mentoring a MILA intern on developing a Tensorflow based training codebase for neural network compression with multiple features like knowledge distillation, structural prunning, quantization etc.

Roadzen | *Data Scientist* **February 2019 – April 2021**

- Maintained server code for extraction of events like hard-braking, driver distraction and driver drowsiness from real-time data collected of multiple vehicle sensors.
- Build instance segmentation solutions for automating smartphone damage detection insurance claims.
- Worked on object detection solutions for automating vehicle number plate and odometer reading from images.

THRSL | *Research Engineer* **April 2017 – January 2019**

- Maintained 3D face alignment model for real-time head pose estimation used in the driver monitoring software.
- Improved the driver monitoring software using a new feature based on head nod counting in drowsy driver condition.

Hyundai Mobis | *Research Engineer* **August 2016 – March 2017**

- Manually quantize and unit tested various modules of MATLAB Simulink based ADAS models.

Education

Concordia University | *Master of Science in Computer Science* | *Montreal, Quebec* **Fall 2019 – Winter 2021**

- **Thesis:** *GANs compression supervised by Prof. Tien. D. Bui*
- **Coursework:** *Deep Learning, Computer Vision, Machine Learning*
- **Teaching Assistant:** *Machine Learning*, Fall 2020 and Winter 2021

IIT Hyderabad | *Bachelor of Science in Electrical Engineering* | *Hyderabad, Telangana* **Fall 2012 – Winter 2016**

- **Thesis:** *Induction motor vibration analysis supervised by Prof. Siva Kumar*
- **Coursework:** *Data Structure and Algorithm, Probability and Random Processes*
- **Teaching Assistant:** *Digital System and Design*, Fall 2015

Academic Projects

Panorama Mosaic Stitching | *Python, OpenCV* **January 2020**

- Developed a multi-image stitching code using RANSAC, Harris Corners and Homography.

Grid Path Finder | *Python* **September 2019**

- Implemented A* search algorithm with custom heuristics for finding efficient paths in a grid while avoiding obstacles.