Masoud Khairi Atani

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Education

SEP 2023 - PRESENT
MEng in Engineering Science
Simon Fraser University
GPA: 4.33
Courses: Deep Learning, Robotics, Linear Systems, Stochastic Processes

SEP 2018 - AUG 2021
MSc in Artificial Intelligence
Sharif University of Technology
Thesis: *Semi-Supervised Segmentation using Adversarial Networks*
Courses: Machine Learning, Convex Optimization, 3D Computer Vision, Image Processing

SEP 2014 - JUN 2018
BSc in Computer Engineering
Qazvin Azad University

Professional Experience

AUG 2021- SEP 2022
Machine Learning Engineer
Machine Learning Lab, Sharif University of Technology

- Setup and configured Kubeflow to provide necessary tools for developing ML pipelines.
- Trained and deployed various Distributed Deep Learning models using PyTorch.

SEP 2018 - JUN 2021
Graduate Research Assistant
Image Processing Lab, Sharif University of Technology

- Proposed utilization of Generative Adversarial Networks in Semantic Segmentation of RGB-D datasets of Indoor scenes using PyTorch, PIL, and OpenCV.
- Implemented proposed modular attention module using PyTorch

Skills

Programming
- Python, C++, Java, SQL, MATLAB

Tools & Libraries
- PyTorch, Tensorflow, Keras, MLlib, Kubeflow
- Scikit-learn, Pandas, Numpy, PySpark, OpenCV
- Kubernetes, Docker, Git, Linux

Awards & Honors

- Ranked 21st among more than 26,000 participants in Nation-wide M.Sc. Entrance Exam
- Ranked first in the class 2018 of Computer Engineering in Qazvin Azad University
- Second place in Robocup Iran Open

Projects

Setup and Configured Kubeflow for distributed ML deployments
- Configured Provisioning of on-permise resources using docker and Kubernetes.
- Setup Kubeflow inside Kubernetes
- Deployed Image Classification and Linear Regression using distributed Pytroch

Implemented a proposed attention within a U-Net using PyTorch in Python
- Implemented proposed attention module to capture local dependencies for semantic segmentation on indoor scene datasets using PyTorch

Implemented an Image to Latex converter
- Implemented converter with an Autoencoder which used CNN for image feature extraction and RNN for text feature extraction
- Technologies used include PyTorch, OpenCV, and Torchvision in Python

Implemented object detection for Football, Obstacle and Landmarks for Robots using OpenCV C++
- Detection of various objects using classical image processing techniques such as edge detection, Hough transform