# **Masoud Khairi Atani**



(613) 252-5926



Vancouver, BC



masoud\_khairi\_atani@sfu.ca



masoudka.com

#### **Education**

SEP 2023 – AUG 2025 EXPECTED

#### **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 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