Hooman **Ramezani**

4A Systems Design Engineering, University of Waterloo

Aspiring machine learning engineer with diverse skillset of
deep learning and software development technologies

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SKILLSETS

- Proficient building **object-detection** / **classification** models
- **Tensorflow**, designing models w/ customized architectures
- **Data Engineering,** raw-data manipulation and analysis

EDUCATION

BASc, University of Waterloo

Sept 2018 - Apr 2023

- 3.7 / 4.0 GPA

Relevant Courses

- Intro to Machine Learning
- Data Structures & Algorithms

TOOLKIT

Python (4yrs) | Tensorflow (2yrs) | PyTorch (2yrs) | Computer Vision (OpenCV) (2yrs) | C++ (4yrs) | Keras (2yrs) | CUDA (2yrs)

EXPERIENCE

Deep Learning Developer │ *DarwinAI*　　　　　　　　　　　　　　　　　　　SEPT. 2021 - Present

- Customer facing position curating custom deep learning solutions from client datasets in **manufacturing** and **healthcare**
- Delivered medical classification model to **Pfizer** team which reduced examination time by **20%** for medical practitioners, utilizing **PyTorch CNN** and custom data augmentations to produce highly sensitive and accurate model
- Leading research for **3D robotic grasp detection** project utilizing LiDAR PointNet dataset to learn optimal grasping points

Deep Learning Developer │ *Applied Brain Research*　　　　　　　　　　　　　　JAN. 2021 - APRIL 2021

- Developed end-to-end pipeline for **drone object-detection** model to identify surface defects on complex structures
- Built **Unreal Engine 4** simulation paired with **OpenCV** masking for data generation, mitigating shortage of real-world data
- Achieved **94%** object-detection accuracy using **RCNN** to process video frames tracking **temporal data** with LSTM, incorporating GPU optimization for efficient training and NNI hyperparameter automation

Backend Developer │ *Baron Biosystems*　　　　　　　　　　　　　　　　　　MAY. 2020 - AUG. 2020

- Manipulated large **data models** developing functionality for a data-driven cycling analytics platform with PHP, MongoDB
- Kickstarted ML Pipeline by connecting **MongoDB** backend data to **Tensorflow** for unsupervised learning model

Android Developer │ *reebee Inc.*　　　　　　　　　　　　　　　　　　　　SEPT. 2019 - DEC. 2019

- Responsible for end-to-end feature deployment, increased efficiency through memory optimization and CPU-threading

Web Automation Developer │ *SAP Canada*　　　　　　　　　　　　　　　　JAN. 2019 - APRIL. 2019

- Utilized Python, AWS, SQL to develop automated regression test-suite for SAP HANA database management system

PROJECTS

Nailed-It │ *AI-Powered Medical Diagnosis Software*　　　　　　　　　　　　　　　FEB. 2019

- Designed **Tensorflow image classifier** to perform early-stage diagnosis of oxygen-deprivation illnesses through analyzing nail discolouration with **CNN** architecture
- Awarded **2nd** place in UofT HackXplore hackathon for high level of creativity and intuitive front-end (**React**)

Toronto Housing Price Estimator │ *AI-Powered Web Application*　　　　　　　　　MARCH 2021

- Lead development of Keras model estimating Toronto housing prices within **5% accuracy** for all Toronto neighbourhoods
- Designed web scraper to create dataset of recently sold Toronto houses and wrangled highly predictive training features

Titanic Machine Learning Competition │ *Kaggle*　　　　　　　　　　　　　　AUG. 2020

- Placed in **top 20%** of submissions for development of **Keras** neural network which predicts Titanic passenger survival
- Optimized performance with **feature engineering**, accurately filling-in, removing, quantizing and normalizing data