

Hooman Ramezani

3A 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

- **Python** (4yrs) **C++** (4yrs) **Computer Vision w/ OpenCV** (1.5yrs)
- **Tensorflow**, building models w/ customized architectures
- **Data Engineering**, raw-data manipulation and analysis
- Designing efficient backend for **databases** and **APIs**

EDUCATION

Systems Design Engineering

BASc, University of Waterloo

Sept 2018 - Apr 2023

- 3.7 / 4.0 GPA

Relevant Courses

- Data Structures & Algorithms
- Probability and Statistics
- Matrices and Linear Systems

EXPERIENCE

Deep Learning Developer | *Applied Brain Research*

JAN. 2021 - APRIL 2021

Tools: Tensorflow, Unreal Engine 4, OpenCV, Python, Keras, CUDA, Ubuntu, Git

- Developed end-to-end ML pipeline for a drone image classification model using modern ML / computer vision stack
- Built **Unreal Engine** simulation paired with **OpenCV** masking for data generation, mitigating shortage of real-world data
- Achieved **96%** object-detection accuracy using **RCNN** to process video frames, incorporating NNI hyperparameter automation, GPU optimization for efficient training, and **temporal processing** using LSTM

Backend Developer | *Baron Biosystems*

MAY. 2020 - AUG. 2020

Tools: PHP + Laravel, JavaScript, JSON, MongoDB, MySQL, Jira, Git

- 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
- Constructed platform-wide messaging service with **10k MAU**, consolidating open-source libraries and **APIs**

Android Developer | *reebee Inc.*

SEPT. 2019 - DEC. 2019

Tools: Kotlin, React, Java, ORMLite, Node.js, Firebase, Git

- Responsible for end-to-end deployment of features on reebee's native Android shopping app with over **900k MAU**
- Decreased memory costs from 50MB to 10MB on average for RecyclerView, optimizing with **CPU multi-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

Toronto Housing Price Estimator | *AI-Powered Web Application*

MARCH 2021 - PRESENT

- Lead development of model estimating Toronto housing prices within **5% accuracy**, web-app deployment *May 21, 2021*
- 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

Nailed-It | *Medical Diagnosis Application*

FEB. 2019

- Designed an **image detection** and **classification** system using **Tensorflow CNN's** to perform early-stage diagnosis of oxygen-deprivation illness by recognizing user's nail discolouration
- Awarded **2nd** place in UofT HackXplore hackathon for high level of creativity, and intuitive front-end created with **React**