

# Hooman Ramezani

3A Systems Design Engineering, University of Waterloo

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

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## EXPERIENCE

### Deep Learning Developer | *Applied Brain Research*

JAN. 2020 - PRESENT

Tools: Tensorflow, Unreal Engine 4, OpenCV, Python, Keras, Linux

- Developed end-to-end ML pipeline for an **embedded** image classification model
- Built photo-realistic **Unreal Engine** simulation paired with **OpenCV** masking for synthetic data-generation, mitigating shortage of real-world data
- Expanded architecture for **convolutional RNN** to process video, incorporating YOLO object-detection, hyperparameter automation, and GPU optimization
- Currently iterating to include **temporal processing** with goal of **96%** accuracy

### Backend Developer | *Baron Biosystems*

MAY. 2020 - AUG. 2020

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

- Led projects developing innovative functionality for a **PHP** web app for analytics
- Leveraged **REST API's**, custom **JSON** data, and **MongoDB** backend to create platform-wide messaging service with cloud capabilities
- Implemented enhanced logic on **MySQL** backend, including migrating legacy infrastructure to modern stack, to create 'Profiles' feature for users on platform

### Android Developer | *reebee Inc.*

SEPT. 2019 - DEC. 2019

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

- Major role in development of reebee native Android app with over **900k MAU**, incorporating **Firebase** analytics
- Utilized **ORMLite** to create local database that interface's with platform-wide **SQLite** database engine
- Built functionality into reebee **REST API**, implementing throttling for requests to improve api throughput

### 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

### Titanic Machine Learning Competition | *Kaggle*

AUG. 2020

- Trained a **predictive neural network** using **Keras** architecture to classify which passengers would survive, placing in **top 20%** of submissions (Code on Github)
- Optimized performance with **feature engineering**, accurately filling-in, removing, quantizing and normalizing data

### Nailed-It | *Medical Diagnosis Application*

FEB. 2019

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

## SKILLSETS

- 4+ years exp. w/ **Python**, **C++**
- Designing efficient **back-end** for **databases** and **API's**
- **Tensorflow**, building models w/ customized architectures
- **Data Engineering**, raw-data manipulation for models

## EDUCATION

### Systems Design Engineering

*University of Waterloo*

#### Relevant Courses

- Google ML Crash Course
- Matrices and Linear Systems
- Data Structures & Algorithms
- SYDE 121 - C++ with O.O.P.