# Monde Duinkharjav

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# **EDUCATION**

## Massachusetts Institute of Technology (MIT)

UG in Dept. of Computer Science & Engineering, Class of 2018

Performance Engineering

Machine Learning (Grad)

Algorithms I & II

Electrodynamics Real Analysis

Software Construction Computer Systems Engineering

Quantum Computation (Grad)

# SELECTED PROJECTS

## ADT Rostering App - Meteor/React Web Application

Winter '17

Creating a productivity web application for the MIT Asian Dance Team for rostering over 200 students across ~15 dances.

#### Reddit Bot – Machine Learning Project

Wrote a paper on the language of a popular social platform, Reddit, as understood by LSTM neural networks providing in-depth analysis of the experiment results. Link to paper: budmonde.github.io/assets/redditbot.pdf

# Harmony - Ruby on Rails Web Application

Winter '15

Built a real-time synchronized shared music sheet editor with playback features using Ruby on Rails, Firebase and jQuery. Worked mainly on the front-end component of the web app as part of a team participating in the MIT Web Programming Competition (6.148). Link to web app (on hiatus since Winter '15): icanphysics.herokuapp.com

#### **WORK EXPERIENCE**

#### OMRON Corporation, Kyoto, Japan

Software Developer, Summer '16

Designed and implemented a neural network for 3D image upsampling as part of the Computer Vision team at the Omron R&D Department.

#### MIT 6.148 (6.470) Web Programming Competition

Instructor, Fall '15 – present

Taught web development to over 100 MIT freshmen and sophomores. Worked as Project Manager for the course in the '16-'17 academic year. Taking initiative to integrate modern web technologies such as ES6 and React to the current curriculum.

#### MIT Department of Civil and Environmental Engineering

Researcher, Fall 2014

Developed models for various fluid interactions such as diffusion of cough droplets and collision of rain-droplets on various surfaces.

# **SKILLS**

#### Programming Languages

C, Java, Python, Javascript

# Web Development

Node, Express, Meteor MongoDB, MySQL React, Blaze

#### Software & Systems

Linux, Windows Tensorflow, Caffe, Torch Unreal Engine 4 Lightroom, Photoshop

#### Languages

Mongolian - Native Russian, Japanese – Conversant

#### **ACTIVITIES**

MIT Technique Junior Photo Editor for MIT's photography club.

MIT Asian Dance Team Technical Director responsible for showcase logistics.

#### **AWARDS**

MIT 6.148 2015 Won the MIT Web Programming Competition in the Main Division.

IPh0 2014 Awarded Silver Medal at the International Physics Olympiad.

APh0 2014 Awarded Bronze Medal at the Asian Physics Olympiad

IPhO 2013 Awarded Bronze Medal at the Asian Physics Olympiad