# Miguel Morales

## **TECHNICAL SKILLS**

Languages Python\*, Java\*, C, C++, C#, R

Frameworks Numpy\*, Scikit-Learn\*, Scipy\*, OpenCV\*

TensorFlow\*, Keras, BURLAP\*, Android SDK

Matplotlib, ggplop2, OpenAl Gym, Pandas

Fields Reinforcement Learning\*, Deep Learning\*

Artificial Intelligence\*, Statistics Optimal Control, Parallel, Bayesian

git\*, Docker\*, Emacs\*, UNIX tools\* Tools Vagrant, AWS, KVM\*, VirtualBox

Methodologies Agile Scrum, OOP, OOD, OOA, TDD, BDD

OSs Linux\* (Arch, RedHat, Debian), Windows, ESXi

\* Denotes expert level

#### **PROJECTS**

Deep Reinforcement Learning | Ping Pong Agent www.github.com/mimoralea/king-pong

Udacity

- Incorporated TensorFlow and OpenCV to learn the state space from raw pixels.
- Implemented Deep Reinforcement Learning algorithm as suggested by the Google DeepMind team.

Artificial Intelligence for Robotics | PID & Localization Georgia Tech www.github.com/mimoralea/kalman-karma

- Influenced team to propose unique project to the Instructors.
- · Conjointly implemented PID controller and localization algorithms such as SLAM and Particle Filter.

**Convolutional Neural Networks** | Traffic Sign Classification Udacity www.github.com/mimoralea/traffic-signs

- Programmed image pre-processing pipeline using Computer Vision techniques and OpenCV library.
- Implemented and improved a Deep Convolutional Network from published paper using TensorFlow.

Behavioral Cloning & Transfer Learning | Driving Clone Udacity www.github.com/mimoralea/behavioral-cloning

- · Leverage existing CNN architecture and weights using Transfer Learning to clone human driving in simulated car.
- Built parallel implementation on multiple GPUs with Keras.

#### FORMAL EDUCATION

#### Georgia Institute of Technology

May 2017\*

MS in Computer Science - GPA 3.89/4.00 Interactive Intelligence Specialization

Florida Atlantic University

Dec 2010

BS in Computer Science - GPA 3.88/4.00

Upsilon Pi Epsilon - Computer Science Honors Society

# **CERTIFICATES AND ADVANCED COURSES**

Udacity   Robotics Nanodegree	Dec 2017*
Coursera   Data Science Specialization	Nov 2017*
Udacity   Self-Driving Car Nanodegree	Oct 2017*
Udacity   Machine Learning Nanodegree	Jun 2016
GaTech   Artificial Intelligence	May 2016
GaTech   Machine Learning	May 2016
GaTech   Reinforcement Learning and Decision Making	Dec 2015
GaTech   Artificial Intelligence for Robotics	Dec 2014
	* Future date

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LinkedIn, GitHub, StackOverflow, Twitter by mimoralea

Website: www.mimoralea.com

#### WORK EXPERIENCE

Udacity Remote

Self-Driving Car Nanodegree Mentor

Dec 2016 - Current

 Motivated group of 20 students daily to learn and study Self-Driving Car concepts and techniques.

· Supervised weekly student progress and held them accountable allowing the effort of learning to occur.

Udacity Remote

Code Reviewer

Jun 2016 - Current

• Provide actionable feedback to students around the world for Self-Driving Car and Machine Learning projects.

 Recommend program design best practices in Python, to improve code readability and maintainability.

#### Georgia Institute of Technology

Remote

Head Graduate Teaching Assistant

Jan 2016 - Current

- Host weekly open floor online meetings yielding improved student performances.
- Oversee team of graders and provide standards to deliver a seamless experience.

### **Hewlett Packard Enterprise**

Plano, TX

Firmware Engineer

Jun 2015 - Apr 2016

- · Initiated peer programming approach and mentored engineers on Java and program design principles.
- Enhanced the internal test development framework coverage and quality.

#### HomeCEUConnection

Plano, TX

Senior Web Developer

May 2014 - Apr 2015

- Established Agile methodologies, streamlining the completion
- Diagnosed site-wide downtime, and took immediate action and complex decisions under pressure to resolve issue.

#### Cisco Systems

Lawrenceville, GA

Software Engineer

Mar 2013 - Jan 2014

- Co-authored prototypes of the IP Client set top boxes to be showcased at national customer events and news media.
- Collaborated on design meetings to architect solutions.

T&TA

Plano, TX

Member of Technical Staff

Jan 2011 - Mar 2013

- Aligned U-verse Advanced Technical Support Data Collection Team to better assist customers.
- Pioneered C# web dashboard that centralized the 13,000+ servers of the entire U-verse platform.

# EXTENDED WORK EXPERIENCE

DataCore | Test and Integration **ArchieMD** | Test and Integration Freelancer | Web Developer

**VideoNET** | System Administrator

Florida | 2010 - 2011 Florida | 2010

Florida | 2007 - 2009

Venezuela | 2003 - 2006