# **Krunal Panchal**

75 Saint Alphonsus Street, #1816 Boston MA 02120 | Cell: +1 617-987-7912 | Email | LinkedIn | GitHub

# **Relevant Projects**

# Vehicle Lane Line Detection – Self-Driving Car Engineering, Udacity

January 2017

- Detected highway lane lined on a video stream. Used OpenCV image analysis technique to identify lines, including Hough Transform and Canny edge detection.

#### **Traffic Sign Classification – Self-Driving Car Engineering, Udacity**

February 2017

- Built and trained a deep neural network to classify traffic signs, using TensorFlow. Experimented with different network architectures. Performed image pre-processing and validation to guard against over fitting.

# Use Deep Learning to Clone Driving Behavior – Self-Driving Car Engineering, Udacity

February 2017

- Build and trained a convolution neural network for end-to-end driving in simulator, using TensorFlow and Keras. Used optimization techniques such as regularization and dropout to generalize the network for driving on multiple tracks.

# Advanced Lane Finding – Self-Driving Car Engineering, Udacity

March 2017

- Built an advanced lane-finding algorithm using distortion correction, image rectification, color transforms, and gradient thresholding. Identified lane curvature and vehicle displacement. Overcame environmental challenges such as shadows and pavement changes.

## **Vehicle Detection and Tracking – Self-Driving Car Engineering, Udacity**

March 201

- Created a vehicle detection and tracking pipeline with OpenCV, histogram of oriented gradients (HOG), and support vector machines (SVM). Optimized and evaluated the model on video data from an automotive camera taken during highway driving.

# **Education**

## University of Massachusetts Boston, Boston, USA

Dec. 2015

Master of Engineering in Computer Science

**Related Courses:** Objected Oriented Programming, Analysis of Algorithm, Database Management System, Robotics **University of Mumbai**, Mumbai, INDIA

Jul. 2011

Bachelor of Engineering in Computer Engineering

Certification: Self-Driving Car Engineer, Machine Learning, AngularJS, Javascript, PHP, Hardware and Networking.

#### Technical Knowledge

Languages Python, C++, C#, JavaScript, VBScript, Classic ASP, PHP, Java, SQL

Frameworks OpenCV-Python, ASP.NET, HTML5, CSS3, AngularJS, Node.js, CoffeeScript, jQuery

Databases Oracle, SQL, MongoDB

Software TensorFlow, Keras, Visual Studio, Eclipse, NetBeans, MATLAB, JIRA, Dojo Toolkit

## **Professional Experience**

## **Granite Telecommunications – Boston MA (Software Engineer)**

Jan. 2016 - Present

- Designed, developed and implemented web based enterprise solution, which used by 1500+ employee to manage the business and drive company's success.
- Reengineered middleware tier that fueled improvements to productivity, efficiency, and accuracy of an application.
- Developed RESTful endpoint on middleware for exchanging user's account information and transactional information.
- Served as a core group member in implementing and prioritizing technology investments for the upcoming years, assuring the alignment of process, technology and business objective.

## **CAKE – Boston MA (Full Stack Developer Intern)**

Sep. 2015 - Nov. 2015

- Designing, implementing and testing application's framework using Jade, SCSS and JavaScript.
- Integral part of a three members team responsible to drive the product launch.

#### Aras Corporation – Andover MA (Web Developer Intern)

Jun. 2014 - Nov. 2014

- Implemented the site map project using ASP.NET, which is live and used by the company.
- Designed and developed the front-end module for the company website using Dojo framework.

#### WinMax technologies Pvt. Ltd. – India (System Engineer)

Apr. 2012 - Aug. 2013

- Designed and developed numerous modules of websites using the MVC architecture and improved the existing backend functionalities using PHP and frontend functionalities using HTML, CSS and JavaScript.
- Performed Testing in CRM Product, Social Networking websites (Cricket Interact, FriendsPod, VertexPod).

#### KAMP InfoTech – India (Web Developer)

Aug. 2011 - Apr. 2012

- Architect, designed and developed multiple Web Applications using frontend and backend technologies.