

DIPKUMAR PATEL

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EDUCATION DETAIL

University of Ontario Institute of Technology (UOIT)

January 2020 - Present

Master of Applied Science, Electrical and Computer Engineering

Gujarat Technological University, Ahmedabad, India | 8.28 CGPA

August 2011 - May 2015

Bachelor of Engineering in Electronics and Communication Engineering

PROFESSIONAL EXPERIENCE

Streebo solutions | Ahmedabad, India

July 2018–November 2019

Senior technical consultant

- Creating full-stack web applications development in Java, spring, spring boot, angular, reactJs and other supportive technologies for clients across the globe.
- Worked on product development. which can generate web and mobile applications just by dragging and dropping components to the project explorer.

Infosys Limited | Pune, India

July 2015–July 2018

Senior system engineer

- Created and managed web applications in Java, Spring, spring boot, angular for world's largest soft drink and bottling company
- Developed and trained chatbot and integrated it with existing web and mobile apps and integrated it in messenger for internal employees.
- Created RPA tool to manage and run automation scripts on 7 different machines. Integrated dashboard to check all the information in one place and to control the entire automation ecosystem. These automation scripts were created to solve routing service requests, batch jobs and to generate reports. It was saving 40 hours of effort a day and I have received recognition and appreciation award for these implementations.

TECHNICAL SKILLS

Langages	:	C, C++, Java, Python, VB script
Databases	:	SQL, Oracle SQL, Transact SQL
Full stack development	:	Spring, Spring Boot, JDBC, JSP, JSF, Hibernate, servlet, Js, Angular
Test cases	:	Junit, Mockito, Power Mockito
Code Analysis	:	Bamboo, SonarQube
Version control	:	Git, Bitbucket
Machine learning	:	Python, Panda, TensorFlow
Embedded/IoT	:	Arduino, raspberry pi, ROS (Robotics operating system), open cv
Issue Tracking	:	JIRA

COURSES & CERTIFICATION

Datacamp certifications: Dealing with Missing Data in Python, Cleaning Data in Python, Visualizing Time Series Data in Python, Model Validation in Python, Manipulating Time Series Data in Python, Introduction to Deep Learning in Python, Introduction to Data Visualization in Python, Feature Engineering for Machine Learning in Python, Dimensionality Reduction in Python, Analyzing IoT Data in Python, ARIMA Models in Python

Certification	University/issuer	Source
DAT201x: Querying with Transact-SQL	Microsoft	www.edx.org
Introduction to Linux	Linux Foundation	www.edx.org
CS101.1x: Introduction to computer science part 1	IIT, Bombay	www.edx.org
DEV210x: Introduction to C++	Microsoft	www.edx.org
6.00.1x: Introduction to comp. sci. and progra. Lang. using python	Massachusetts Institute of Tech.	www.edx.org
COMP102.1x: Introduction to JAVA Programming	Hong Kong Univ. of Sci. & Tech.	www.edx.org
DEV220x: AngularJS: Framework Fundamentals	Microsoft	www.edx.org

ACTIVITIES

- Mozilla Firefox student ambassador and Volunteer at Google Developer Group, Baroda
- Participated in MIT Media Lab, 5th design and innovation workshop and created solutions to enable disabled people. A few hundred were selected from all India out of thousands of entries.
- Winner at state level hackathon hack-pi-duino, organized at Ahmedabad, India.
- Runner up in national level Hackathon Make-A-Thon at IIM, Ahmedabad.
- Selected for Google India challenge scholarship: Web development track in Udacity. This scholarship was started by Google to train developers across India. After selection, I have opted for the web development track.
- Selected for Udacity - self-driving car engineer nano-degree scholarship sponsored by KPIT. out of thousands of applications, few hundred were selected. This interactive course was nicely designed to learn how to make self-driving. Apart from course lectures I have done 5 projects like lane line finding, traffic sign classifier, behavioral cloning, extended Kalman filter.
- I have done a 2 months virtual internship in an adstore internet company. My role was to manage a client's portfolio on different social media sites and to run a social media campaign for them.
- Volunteer in Streebo academy and tech girl's initiative to provide tech education to girls and economically backward school students.

PROJECTS:

Stanley Jr. - An autonomous car: Stanley Jr. is an autonomous car built for F1tenth racing competition. It can go a maximum of up to 60 mph. The car uses Hector SLAM and pure pursuit Localization and path planning approach. Project files and video presentations available at our [GitHub](#) page.

Behavioral cloning of self-driving car: I have applied deep neural networks and convolutional neural networks to clone driving behavior. I trained, validated and tested a model using Keras. Input to the project was training data containing what to do when certain situations come. Based on that I trained my model and after that, I applied the same to the driving simulator where the car was running smoothly and besides steering angle information was displayed.

Advanced lane line finding from live video & Traffic sign classification: When we drive, we use our eyes to decide where to go. In this project, I used python and open cv to take video feed as input detected lane lines on curvy roads so that cars can predict where to drive itself. Steps performed to get the output: Performed a camera calibration, Applied a distortion correction, color transforms and gradients to create a thresholded binary image, performed perspective transform, detected lane pixels using the histogram, finding the curvature of the road, displayed green color in lane lines in the original video.

Quadcopter: An unmanned autonomous vehicle: As part of my final year project, I have created a quadcopter which can be flown autonomously without the remote control. After selecting the path on the map, data (coordinates, path and at what height to fly) was fed in a quadcopter controller and then the quadcopter was able to finish its ride on its own. One challenge we were facing was during landing time, as we have used GPS there was an error of up to 5 meters. To avoid this, we fitted the camera in our quadcopter and using open cv, we processed live video feed and decided where to land and achieved 95% accuracy.

PERSONAL DETAILS:

Date of Birth: 21st September 1994

Gender: Male

Nationality: Indian

Hobbies: Gaming

DECLARATION:

I hereby declare that all the information given above is true to the best of my knowledge.

Dipkumar Patel