Divvanshu Kalra

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Education

- B.Tech ICE: NSIT, Dwarka, Delhi (Pursuing since 2014)
- 12th, CBSE : MJK Public School, CBSE board in 2014 (94.2%)
- 10th, CBSE : MJK Public School, CBSE board in 2012 (9.2 CGPA)

Internships

INTERN, PAYTM – 15 JUNE 2016 - 31 JULY 2016

Worked on "API Testing Suite in Python", read and extract API structure from API documentation itself. It can be used to chain together multiple API's and run all possible combination of test cases from excel files automatically.

INTERN, IMEDICALHUB – 01 JUNE 2016 - 1 SEPTEMBER 2016

Scrapped data of doctors, hospitals, etc. from the web, programmatically using python3 (Dryscrape and Selenium). Created a real time notification system (and it's corresponding PHP API) that used NodeJS and socket.io to make a real time push notification system that used HTML5 web sockets, rather than the traditional AJAX. Worked on the core website API security. Analysed the system and reported potential security holes. Implemented pbkdf2 hashing algorithm in PHP to replace the less secure MD5 hashing algorithm for password storing. Implemented OAuth 2.0 security protocol to secure the backend central web API server, in PHP CodeIgniter framework. Created tech support chat system which can support multiple admins.

INTERN, PARKZAP – 04 JANUARY 2016 - 04 FEBRUARY 2016

Worked on the core android application, created OCR application that can detect number plates using android vision. Worked on Graphana, influxDB and Collectd to collect real time server stats and push it to Graphing dashboard. Created java class that can communicate with influxDB using retrofit and android volley.

Projects/Freelancing

SENTIMENT ANALYSER (PYTHON3, TENSORFLOW, WORD2VEC)

Uses Word2Vec to map all the words in a tweet as vector and then analyses them using a 3 layer deep neural net constructed with TensorFlow to detects if the tweet is positive or negative.

FREELANCER, ZAKIMONKEY – MARCH 2015 - MAY 2016

Developed the main website using PHP, MySQL, AJAX, jQuery, JavaScript, HTML5 and CSS3. Worked on optimising the website to achieve faster performance (Google PageTest tools score : 91/100).

FREELANCER, SHAREGAADI - DECEMBER 2014 - MARCH 2016

Developed the main website using Google Maps API, PHP, MySQL, AJAX, jQuery, JavaScript, HTML5 and CSS3.

HOME AUTOMATION (PYTHON3, RASPBERRY PI, ARDUINO)

An android app which allows the user to control devices in his house,using voice control, via Natural Language Processing (wit.ai API). The central server is written in Flask for Python3.5.

Other Projects: Tweets Sentiment Analysis, Search implementation for CollegeSpace, Database design for NSIT's annual fest (Moksha), AutoComplete plugin using jQuery, MailArduino: Check mail on LCD connected to Arduino, Gas Leakage detection system using RPI and Arduino, controlling LED over the internet using RPI, RemotePlay: Remotely play music on speakers using RPI.

Competitions

Won the first prize in GreyOrange's GOAL 2k16 (Phase -1)
Participated in Buildathon 2k15 , AngelHack 2k15, Esya Hackathon 2k15 and HackDelhi 2k15

Research Papers

ADVANCES IN KEYSTROKE DYNAMICS: 2005 - 2016

A survey of all the techniques used in Keystroke Analysis for user authentication in the time period 2005-2016.

Skills

PROGRAMMING LANGUAGES : PYTHON3, TENSORFLOW (PYTHON3), JAVA (BASICS), C, C++, PHP, MYSQL, HTML5, JAVASCRIPT, JQUERY, CSS, AJAX, PYTHON2.7, ANDROID APP DEVELOPMENT (ANDROID STUDIO), ACTIONSCRIPT 2.0/3.0, BOOTSTRAP, OPENCV (FOR PYTHON3), BASH SCRIPTING, C# (FOR UNITY), MATLAB, OCTAVE, INFLUXDB.

HARDWARE: Arduino (Uno, Nano, Pro, Mega), Raspberry PI.

SOFTWARE TOOLS : Unity Gaming Engine, PSpice, Matlab, MS Office, Eclipse, Macromedia Flash, Libre Open Office, graphana, collectd.

OPERATING SYSTEMS: Linux (Ubuntu (14.04/ 16.04), Mint, CentOS, Kali Linux), Mac OSX, Windows.