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Uttarakhand - 248007

MANAN KALRA

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EDUCATION

Dehradun, Uttarakhand	University of Petroleum & Energy Studies	2014-2018
<ul style="list-style-type: none">Bachelor of Technology in Computer ScienceGPA: 2.93/4.00		
Bhiwani, Haryana	Delhi Public School	2007-2014
<ul style="list-style-type: none">XII (CBSE, 2014) – 87.2 %X (CBSE, 2012) – 10.0/10.0		

EXPERIENCE

Software Engineering Intern	Lean Apps GmbH – Pune, MH, India	May 2017-July 2017
<ul style="list-style-type: none">Worked with the ELK team to set-up the complete elastic stack for operational log analysis. Wrote scripts to automate the process of creating and configuring machine learning, alerting and reporting capabilities to detect unusual behavior or anomalies in application, audit, system and cloudwatch logs.Worked with the DevOps team to investigate the stability and performance of Vagrant. Wrote configuration files to create a disposable Vagrant environment for automated provisioning of the elastic stack.Studied and implemented algorithms for speech processing to filter out cross-talk and background noise from sound samples recorded by an android application. Also, implemented a feature to make the loudness of the played-back recordings auto-configurable in case of noisy and silent environments. The app is currently being used to help stroke patients to continuously train their ability to speak properly by analyzing the patient's pronunciation and providing challenge specific video guides to improve their speech.Developed a Yeoman generator which is a npm module to kickstart Android development in both Java and Kotlin with added support for Fastlane and SonarQube.		

PROJECTS

Academic

- Real-Time Social Event Monitoring** **Feb 2017**
This project detects and displays currently trending social events by analyzing live Twitter feed based on dialects. This can be used to monitor natural calamities and in identifying patterns in streaming event data that are significant to business operations. **Java, Python, NLP(nltk), Big Data, Apache Spark**
 - Implemented the process of fetching live Twitter feeds using twitter4j and tweepy.
 - Processed the large dataset of tweets received using Apache Spark to detect relevant events along with a tweet that contains concise and to-the-point information about the same.
 - Designed and implemented an algorithm to rank the detected events based on their popularity and occurrence.
- An Improved Image Encryption Algorithm Preventing MITM Attacks** **Aug 2016**
Analyzed and deduced the flaws in currently existing algorithms used for visual cryptography and designed an algorithm to prevent various network attacks on digital data. In this work, an effort was made to prevent various kinds of MITM and Plain-Text attacks. **C, Matlab**

Personal (github.com/manankalra)

- **generator-leanapps-android-starter** <https://goo.gl/pPFrcK> **July 2017**
A Yeoman generator to create and maintain an Android application based on latest frameworks and patterns used by the community. It has added support for Fastlane to automate the application release process and SonarQube for quality analysis. **Javascript, Java, Kotlin**
- **AlgoLucidator** **Feb 2017**
Elucidates understanding of algorithms in a fun and interactive way. **C/C++, OpenGL**
- **Twitter Sentiment Analysis** **Jan 2017**
This project plots live tweets after analyzing them for positive or negative sentiments based on Naïve-Bayes, Logistic Regression and SVC algorithms. **Python, Natural Language Processing (nltk), ML (scikit-learn)**

Main basis of this project was to analyze movie reviews for positive or negative sentiments and know how accurately the sentiment is predicted. Later on, it was modified to fetch data from live twitter feeds and the algorithms were trained on a large corpora to predict sentiments in a tweet based on topics and the prediction with the highest votes was used every time.
- **Weather Teller** **Dec 2016**
Developed a tkinter app that displays weather conditions in the city/coordinates input by the user. **Python**
- **SimpleChat** **Nov 2016**
Developed a chat application that broadcasts images and text to all the logged-in users. **Android, Firebase**
- **Miwok** **July 2016**
Developed an android application that displays a list of vocabulary words with clip-arts and allows the users to listen to their correct pronunciation in order to learn the Miwok language. **Android**

TECHNICAL SKILLS

- **Programming/Scripting:** Java, Python, Matlab (Novice), JavaScript (Novice)
- **Databases, Systems, Platforms:** SQL, Android, Linux, Elastic stack, Apache Spark, VMware
- **Tools, Packages and Libraries:** Git, SoX, Praat, Vagrant, Firebase, pandas, scikit-learn, NLTK, OpenGL

ADDITIONAL EXPERIENCE AND COURSEWORK

- **Contingent Leader & Campus Ambassador – Mood Indigo, IIT Bombay (Dec 2015)**
Leader of the college team; Also, took care of all the managerial requirements. <http://goo.gl/Qhi21z>
- **Event Organizer – UPES Petrotech Student Chapter**
- **Coursework:** Augmented Reality (IIT Bombay); MATLAB (UPES); Intro to Data Science, Intro to Descriptive Statistics, Intro to DevOps, Intro to Inferential Statistics, Intro to Machine Learning (Udacity).
- **Relevant Links:** www.manankalra.in

PERSONAL DETAILS

- **DOB :** 29-12-1996
- **Gender :** Male
- **Nationality :** Indian
- **Languages Known :** English, Hindi