Ankit Kachroo

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DOB: 15th Nov, 1995

Summary

I am currently a final year Computer Science Engineering undergrad at Birla Institute of Technology, Mesra, India. My interests lie in the domain of Software engineering and development, Machine learning and Data Science. I am passionate about developing real world applications with intuitive interfaces that people have a pleasant experience using.

Education

2013 - 2017

Birla Institute of Technology, Mesra, Ranchi — B.E. Computer Science

CGPA: 8.05/10 (Absolute GPA Up to 6th semester)

2011 - 2013

Delhi Public School, Jammu — CBSE-12th (AISSCE)

Percentage: 91%

2010 - 2011

Delhi Public School, Jammu — CBSE-10th (AISSE)

CGPA: 10.0/10.0

Experience

May 2016 – July 2016

RapidBizApps Pvt. Ltd. — MTS-Intern

- As an intern, worked on various technologies in the domain of IoT, VR and Back-end development.
- Developed an intelligent email server for a company product. Also, worked to automate the process of VR based android app building via a web interface and an appliance control application using Raspberry-Pi.

May 2015 - Present

E-Cell | Birla Institute of Technology — Head Coordinator

- Managed a team of 30+ people across different departments (Marketing, PR, Technical, Event Management, Sponsorship etc.) to conduct various activities and events covering different institutes in and around the city.
- Working towards providing a platform for budding entrepreneurs to nurture their ideas and help them bloom into impactful endeavours.

Language Skills

♦English (Spoken-fluent, Written-fluent) ♦Hindi (Spoken-fluent, Written-fluent)
♦French (Spoken-elementary, Written-fluent) ♦Kashmiri (Spoken-fluent)

Technical Skills

Italics indicate elementary level proficiency.

Programming and Scripting	C/C++, PYTHON, JAVA, HTML, SCRATCH, JAVASCRIPT, SQL, C#, *Computer Vision(OpenCV), Salesforce (point and click), Prolog, PHP, MATLAB*
Frameworks and IDEs	NODE.JS, MJML, UNITY, WEBHOOKS, MICROSOFT VISUAL STUDIO, ECLIPSE, CANOPY, JINJA2, *Android Studio, Django*
Design	CSS, *Bootstrap*, Adobe Photoshop
Server/Database	ORACLE, MYSQL, SQLLITE, MS ACCESS, COUCHBASE, SYNC-GATEWAY, GOOGLE APP ENGINE, *AWS*
Operating Systems/Platforms	Windows, Linux, Mac OS X, DOS

Projects

VR BASED DISASTER TRAINING SIMULATOR | ACADEMIC PROJECT (ONGOING)
• Developing a VR based application that would aid in training people for disasters such as fire, earthquake etc. Successfully built module-1 of developing a fire simulator.
• Unity software is used to create a scene with models and C# scripts are used to control the objects in the scene. The expected output would be a VR based android application that can be used with any VR headset for training purposes.

REAL-TIME NLP BASED EMAIL SERVER | INTERNSHIP PROJECT (SUMMER 2016)
• An email server was created using Node.js and deployed on the cloud for a company domain.
• The aim was to process the natural language sentiments of the statements in emails, and make the desired changes in the database automatically.
• A logistic-regression machine learning classifier was used to further refine the algorithm for better accuracy and faster processing.

VR BASED ANDROID APP BUILD AUTOMATION | INTERNSHIP PROJECT (SUMMER 2016)
• The main aim was to automate the VR android app building process. A user inputs a model, a scene, and the VR platform via a web based interface and gets an android application (APK file) on submitting the data.
• The back-end was handled using Node.js, which was used to upload the files and execute the C# scripts, to output a VR based android application as the output.
• The VR android app was tested successfully on the Google Cardboard platform.

APPLIANCE CONTROL USING RASPBERRY-PI | INTERNSHIP PROJECT (SUMMER 2016)
• The aim was to create an Android application to control various appliances in the building.
• Python was used to access the GPIO pins of Raspberry-Pi. Shell scripts were written to execute the python scripts.
• An android application with a simple and intuitive UI was developed with buttons that send requests to the Apache web server set on Raspberry-pi which ignite the shell scripts.

MACHINE LEARNING BASED TEXT CLASSIFIER | SELF PROJECT (SUMMER 2015)
• Machine Learning based python application that identifies the author of email, book or any other piece of text on the basis of writing style.
• Tested on the Enron corpus containing 0.5 million emails to identify PoIs in the fraud. Mini projects included simulation of various ML algorithms including Naïve Bayes, Decision Trees, SVM, K-Nearest neighbours, Random forest, Clustering, PCA etc.

BLOG WEB-APP | SELF PROJECT (SPRING 2015-SUMMER 2015)
• Basic blog application supporting user registration, password encryption and user posts. Backend developed using Python (Jinja2) and frontend using HTML5.
• Deployed on Google App Engine. DB Management using Google's GQL.

OTHER PROJECTS | (2012-2015)
• Responsive email server (Node.js, MJML), Car Race (Unity, C#), Network Chat and File sharing using (JAVA), Function Generator (Intel 8085), Features detection camera (OpenCV, C++), AI based TicTacToe (MIT Scratch), Airline Reservation (C++)

Key Courses Undertaken

CS & Statistics related:
C and UNIX *(+Lab)*, Data Structures *(+Lab)*, Java *(+Lab)*, DBMS *(+Lab)*, Operating Systems *(+Lab)*, Design of Algorithms, Computer Architecture, Artificial Intelligence *(+Lab)*, Computer Networks *(+Lab)*, Probability Statistics and Numerical Techniques *(+Lab)*, Digital Logic Design *(+Lab)*, Intro to Machine Learning (Udacity), Python (Coursera), Microprocessors *(+Lab)*, Software Engineering *(+Lab)*, Compiler Design *(+Lab)*, Computer Graphics *(+Lab)*, Soft Computing *(+Lab)*, Optimization Techniques, ML for trading (CS7646 GeorgiaTech)

Awards and Achievements

- Bronze: WorldQuant Challenge Alpha Building Competition (20 out of 180 days; ongoing)
- Winner: Mock Parliament session in inter-college festival.
- Runner-up: Code debugging challenge, in inter-college technical festival.
- Runner-up: Research Paper presentation in inter-college technical festival by IETE.
- Top 10 in India: National Entrepreneurship Challenge 2015.
- Winner: Artificial Intelligence game development.
- Runner-up: 8085 Microprocessor based project development
- Top 5: ACM-ICPC styled coding event in inter-college technical festival.
- Top 50 in state: Selected for Youth Leadership in Science Program by CSIR, India.
- AIR 54: Global English Language Test by Institute For Scholastic Evaluation (IFSE).
- Gold Medals: Karate by All India Karate-do Federation.

Extra-Curricular activities

- Developing profitable trading alphas for the US-TOP3000 (2000,1000,500) market and simulating them on the WebSim platform by WorldQuant.
- Worked as a campus ambassador for GoUNESCO which is campaign for preservation of world heritage sites supported by UNESCO. It is backed up by UNESCO, New Delhi. As a campus ambassador, I worked to promote the heritage sites in and around the city.
- Volunteered for Help Age India, a campaign for helping the old and needy people by providing them shelter and food.
- I was the contingent leader of my college team at NEC finals, and led my team to become the contingent winners.
- Conducted various technical workshops at college level including android and artificial intelligence.
- My hobbies include playing table tennis, video games, swimming and watching movies.