Bengaluru-560064 Karnataka, India

Apurva Singh

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EDUCATION

Jaipur

The LNM Institute of Information Technology

Aug'13-May'17

- > Bachelor of Technology in *Computer Science and Engineering*. CGPA: 7.45
- > Undergraduate Coursework: Operating Systems; Databases; Algorithms; Programming Languages; Computer Architecture; Data Structures; Object Oriented Programming.

Ahmedabad

Maharaja Agrasen Vidyalaya

Apr'12-Mar'13

> All India Senior Secondary Certificate Examination, 92.8%

Ahmedabad Maharaja Agrasen Vidyalaya

Apr'10-Mar'11

> All India Secondary School Examination, 9.20/10

EMPLOYMENT

Software Development Engineer

Flipkart Internet Pvt Ltd, Bangalore

Feb'20-Present

• Retail Payments

• part of a team responsible for the management of the retail payments for B2B transactions. Tech stack includes Ruby with Padrino framework and Java 8 with Dropwizard.

Product Engineer

Dimension Labs, SLK Software Services Pvt Ltd, Bangalore

Jul'17-Feb'20

- Database Migration
 - single-handedly worked on API rewrite during database migration from Cassandra to MongoDB of one of the major plugins Mindmaps which had various queries for CRUD operations. Worked on optimization of the queries to reduce the time taken for each API.

• Accessibility Testing Automation

developed the feature to find out different ways in which webpage may not be able to follow the different accessibility
criteria with an in-depth analysis of the various elements in violation of the rules set by Web Content Accessibility
Guidelines (WCAG) and description on how to rectify them, enabling web pages to be disabled friendly and avoid any
potential lawsuits.

• Performance Test Automation Framework

- developed feature for recording scenarios to be performance tested with support for Chrome, Firefox and IE for automated python load test script generation making it a zero-code framework
- implemented transaction and scenario wise statistics collection making it easier to understand and meet the SLA requirements. Reported parameters included request-wise median, average and min-max response time, average content size; responsive graphs also included for time-wise statistics
- devised a master-slave architecture that achieved distributed load testing with up to 1000 virtual users on a single Windows machine and 10,000 virtual users on a single Linux machine reducing the hardware requirements for conducting a performance test.
- implemented features of data-correlation and data parameterization to handle dynamic values in between the requests during a live test.
- Mentored an intern in building a Test Data Management Tool for the generation of fake test data similar to production data with support for databases like Cassandra, MongoDB, MySQL, MsSQL Server. The tool had the option of choosing among masking techniques like substitution and shuffling.

Product Engineer, Intern

Dimension Labs, SLK Software Services Pvt Ltd, Bangalore

Jan'17-May '17

- Eliminated the need for a product guide by introducing a chatbot that could answer different usage questions about the product. Used Cosine Similarity, stemming, keyword matching in developing the bot using python.
- Created a web-based programming contest platform for hosting coding competitions in SLK. Revamped DOMJudge, an open-source project, and customized the features according to our requirements.

Data Analyst, Intern

Tarah Technologies, Bangalore

May'16-Jul'16

- Developed an adaptive learning quiz interface which increased the difficulty of the quiz upon giving the correct answer and vice versa. (<u>demo</u>)
- worked on POCs using Anomaly Detection in R in Trend Analysis and Weather forecasting. (*code*)

Research Intern

Speech Lab, DA-IICT, Gandhinagar

May'14-Jul'14

• Worked on building Unit Selection Synthesis based Text to Speech System for the visually challenged person to use a computer, based on voice command. Worked on labeling the voice data with different syllables as part of the data preparation phase using Audacity.

PROJECTS

- Sentiment Analysis of Movie Reviews (Aug'16-May'17)[Team Size-3] improved the accuracy from 60% to 85% by fine tuning various parameters in identifying if the movie review was positive or negative one; Datasets of IMDb, Rotten Tomatoes were used and trained using Convolutional Neural Network. TensorFlow, Python.
- LUSIP (LNMIIT Undergraduate Summer Internship Program) (Mar'16-May'17) [Team Size-2] (<u>code</u>) As part of the Technical Team of LUSIP 2016 made a portal for the International Summer Internship program of our college. Students could apply to different research projects under various faculty through the portal. Developed a portal for faculty as well to put up projects and requirements for internships. PHP, MySQL, HTML, CSS
- Social Networking Site (Jan'15-May'15)[Team Size-3](<u>link</u>) as a requirement of OOP with Java course built an application with functionalities like user registration, messaging, question answer forums using Java Server pages and DB2.

ADDITIONAL EXPERIENCE AND AWARDS

- Currently a volunteer at *Youth for Seva* (Dec'18-Present)
- Placed Third in Bangalore in Intuit CodeWars Challenge on HackerEarth (Feb'18).
- Stood First in 25K SLK Codeathon (Jan'18).
- Teaching Assistant (2014/15): assisted in lab work for *C Programming* and *IT Workshop* Courses.
- **IEEE WIE Student Chapter (2013/14/15):** was *Secretary, Vice-Chair* and *Chairperson* in consecutive years and helped organize events like women's safety workshops, tech talks, electrical gadget workshops, and Debate competitions.

LANGUAGES AND TECHNOLOGIES

Python; C++; C; Java; R; PHP; SQL; JavaScript; Flask; MongoDB; MATLAB; Linux; Windows; NodeJS; AngularJS

PUBLICATIONS

'A Mask Based Approach For Lossless Image Steganography' in Twenty-first Americas Conference on Information Systems, Puerto Rico, 2015. (link)

- Lossless recovery with high payload capacity and low error magnitude measured through PSNR values. Implemented on MATLAB.
- Provides multilevel security through XOR mapping image pixels with Arnold Transform, resulting in zero data loss.