



# Aryan Kumar

SOFTWARE ENGINEER

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## Work Experience

### Samsung R&D Institute

Noida

SOFTWARE ENGINEER, FULL TIME

July 2018 - PRESENT

#### • GameHub:

- Aims to validate and ingest data of games to provide a virtual gaming console and unified browsing for users to discover from the cloud streamed game to the other sources including console, PC, etc., for numerous cloud gaming platforms like Stadia, Luna, XCloud, etc.
- Led the development of data ingestion pipeline from scratch which handles metadata ingestion from various Content Providers (CPs) and merging them to present consolidated metadata of all games available in various platforms. It is responsible for serving data used for creating dynamic rows and layout in GameHub frontend.
- Designed Internet Game Database(igdb) parser flow which downloads, parses and inserts game metadata via igdb apis into feed DB.
- Designed schema for GMD database (stores gaming related metadata and availability options) and GamingHub Service DB (stores filtered view of all the game availability from various CPs).

#### • Unified MetaData (UMD):

- Aims to analyze, ingest, consolidate and serve data of TV programs to various services like Search and Universal Guide of Samsung Smart TV for more than 20 major streaming applications like AmazonPrime, Google Play, Aria, etc., for 5 different regions of the world.
- Contributed to the development of a data parser which deals with daily ingestion of 50Gbs of data.
- Implemented deletion logic which deletes obsolete watching options of TV programs.
- Developed a GUIDS system to make all 35 million primary IDs in UMD system globally unique across all environments and regions.
- Developed a python script for load testing of GUID database to check if it's capable of handling 4000 simultaneous connections which was tested with 22 million rescue jobs for over 3 hours.

### Digiledge

Bangalore

SOFTWARE ENGINEER, INTERNSHIP

June 2017 - Aug. 2017

- The project was aimed at quick and secure insurance claim settlements using Blockchain. The Blockchain environment for development and testing was locally set-up using Geth console.
- Developed Rest APIs for performing different operations in Express framework of Node.js, frontend in React js framework and Smart contracts to be run on Blockchain in Solidity.
- The functionality of the Blockchain was integrated into the application by using Web3 javascript API.

## Education

### Indian Institute of Technology, Mandi

Aug. 2014 - June 2018

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING

7.38/10

### Campion School, Bhopal

April 2013 - March 2014

CLASS 12, C.B.S.E

87.8%

## Projects

### Database Management Systems for Astronomical Datasets

March 2017 - May 2017

Worked with Hbase and Hive for astronomical data collected by next-generation space telescopes on different machines using Hadoop. Formulated and ran various types of queries on the configured DBMS that might be of interest to the astronomers.

### Seat Belt Monitoring System

Feb. 2017 - May 2017

IR LED, fitted on the belt, is used to transmit IR rays towards the receiver which is fitted on the dashboard, this line of sight tells that seat belt is worn. Devised an algorithm to use a specific morse-code like pulse for IR LED - Receiver which is randomly initialised at boot up, this ensures that the system cannot be confused by other IR sources. An accelerometer was used to detect the motion.

### Automatic Ration Vending Machine

Feb. 2016 - May 2016

Led and contributed to a 6-member cross-functional (hardware, software and product design) team towards successful prototype launch of a vending machine to be used at Public Distribution System. A web application developed in PHP runs on a touch screen and the requested products are dispensed along with a printed receipt. Configured Python scripts to control motors and printer. Presented at National Innovation Clubs meeting held at Rashtrapati Bhavan to the then President of India, Mr. Pranab Mukherjee.

### Best Deals Craigslist

Aug. 2015 - Nov 2015

Designed and developed a web app which facilitates users to post an advertisement of the product. Subsequently, consumers can contact sellers to purchase the product. Used MySQL to maintain backend and HTML, CSS & JavaScript for designing frontend.

## Technical Skills

- **Programming Languages:** C, C++ (version 14), Java, Python, Scala
- **Web Development:** NodeJS, LAMP-Linux, Apache, PHP, HTML, CSS, JavaScript
- **Tools and Utilities:** GIT, GDB, MySQL, PostgreSQL, Kubernetes, Redis, MongoDB, Hadoop

## Achievements

- 2019 **Cleared**, Samsung's Professional coding certification test for its employees.
- 2017 **61st AIR**, among more than 10,000 participating teams in ACM-ICPC online round.
- 2017 **2nd Prize**, ISTP Open House out of 20 competing teams including students from WPI, Worcester.
- 2016 **2nd Prize**, Design Practicum Open House out of 20 competing teams.
- 2015 **2nd Prize**, TopCoder University Hackathon Series out of 30 competing teams.