Anant Kashyap

Computer Science and Engineering · Indian Institute of Technology Delhi

(+91) 9521870570 | anantkashyap105@gmail.com | an-infinity | anant-kashyap

Education

Indian Institute of Technology, Delhi — *New Delhi, India*

B. Tech. in Computer Science and Engineering — *July 2017 - May 2021*

- CGPA: 8.672/10.0

Blooming Buds Sr. Sec. School — *Mainpuri, India*

Class XII, CBSE — *April 2015 - March 2017*

- Percentage: 95.4%

Scholastic Achievements

2019 **Design Innovation Summer Award**, awarded by Design Innovation Center, IIT Delhi — *India*

2017 **All India Rank 302**, in Joint Entrance Examination (JEE) Advanced among 1.5 million applicants — *India*

2017 **Mathematics Merit Roll**, by CBSE(Govt. of India) for Scoring 100% in Mathematics in AISSCE — *India*

2017 **Physics Merit Roll**, by CBSE(Govt. of India) for being among top 0.1% in Physics in AISSCE — *India*

Work Experience

APT Portfolio Pvt. Ltd. — *Bangalore, India*

SOFTWARE ENGINEERING INTERN — *April 2020 -June 2020*

- Designed Dummy Server for **Brazilian Exchange**(B3) based on **FIX Protocol** that can support single client.
- It can support logon/logoff requests through which client registers and auto-generated trade happens.
- Application supports application level messages to submit a new order and cancel or alter the quantity of existing order.
- Used C++ **boost asynchronous I/O library** to implement the server and **deadline timer** to auto-logout a client.

Projects

Analysis of Mass Media Around Data Privacy — *Prof. Aaditeshwar Seth*

B. Tech. Project — *September 2020 - June 2021*

- Built a pipeline from scratch which downloads articles from international newspapers, store their content and metadata in MongoDB, extracts their entities(like person, company, organization) and resolves multiple names for same entity to single entity.
- Pipeline further provides a relevant filter for articles using keyword expansion, and performed clustering of articles using LDA.
- Used the pipeline to analyse mass media bias around data privacy globally and performed comparative analysis of local regions.

Voice Based Chatbot — *Prof. Aaditeshwar Seth*

DISA Project — Mobile Application — *May 2019 - July 2019*

- Made a mobile Application for open-ended data collection in rural areas.
- Used Google owned DialogFlow to make the survey agent which constitutes the backend of the app.
- Used Android Studio to create two versions of the app one by redirecting to DialogFlow other by webview using JSON.
- Deployed Google speech to text API to convert user utterances into text and saved the dialog file onto the device.

Secured Chat Application — *Prof. Aaditeshwar Seth*

Course Project — Computer Networks — *August 2019 - September 2019*

- Built WhatsApp like chat application which allow users to do an end to end encrypted chat.
- Implemented client and server in JAVA to send/receive messages, using an HTTP-like protocol over TCP sockets.
- Ensured end-to-end security using RSA public-private key encryption and message integrity via MD5 hash.

The Game of Cannon — *Prof. Mausam*

Course Project — Artificial Intelligence — *August 2019 - October 2019*

- Implemented adversarial Search Algorithms(Mini-Max, Alpha-Beta pruning) to design a two-player strategic war game.
- Implemented cutoff Search using alpha-beta pruning and evaluation function to decide which move to take next.

Operating System Design *Prof. Sorav Bansal*

Course Project — Operating Systems *Jan 2020 - March 2020*

- Built a Kernel from scratch and shell having command based interface which can support commands like echo.
- Implemented preemption of processes , fiber and coroutines to make it support multiple pending tasks.

CPU with ARM Processor *Prof. Anshul Kumar*

Course Project — Computer Architecture *February 2019 - April 2019*

- Designed ARM CPU based Computer using Vivado tools and BASYS3 FPGA Boards.
- Designed multi-cycle datapath and control path for CPU in VHDL, building units such as RAM, ROM, ALU, Registers.

Google's PageRank using MapReduce *Prof. Rijurekha Sen*

Course Project — Parallel and Distributed Programming *April 2020 - May 2020*

- Implemented pagerank Algorithm using self-made mapreduce library using MPI and C++ mapreduce library.
- Analysed performances of the three parallelised pagerank implementations and got self implemented MPI as best.

Mini Projects

Tweet Sentiment Analysis *Prof. Parag Singla*

Course Project — Machine Learning *May 2020*

- Implemented Naïve Bayes algorithm for classification of tweets by different twitter users.

Detecting Virus-infected Files *Prof. Parag Singla*

Course Project — Machine Learning *May 2020*

- Constructed Decision Trees and Random Forests to predict which files are infected.

Fashion MNIST Article Classification *Prof. Parag Singla*

Course Project — Machine Learning *May 2020*

- Implemented Support Vector Machines to classify outfits depicted in the images.

Alphabet Recognition *Prof. Parag Singla*

Course Project — Machine Learning *April 2020*

- Implemented Neural Network with ReLU and sigmoid activation units on a multi-class dataset.

Technical Skills

Programming Languages C++ (Proficient), C, Python, Java, Kotlin, OCaml, C#, ARM

Utility and Environments Boost asynchronous I/O, DialogFlow, Vivado, ARMSim, Xilinx ISE Design Suite, Unity3d, Vim

Relevant Coursework

- **Computer Science & Engineering :** Operating Systems, Introduction to Machine Learning, Data Structure and Algorithms, Discrete Mathematical Structures, Analysis and Design of Algorithms, Computer Networks, Principles of Artificial Intelligence, Digital Logic and System Design, Programming Languages, Computer Architecture, Design Practices in Computer Science, Introduction to Automata & Theory of Computation, Introduction to Parallel and Distributed Programming.
- **Mathematics & Economics :** Probability and Stochastic Process, Linear Algebra, Optimization Methods and Applications, Introduction to Economics.

Extracurricular Activities

Hindi Samiti Club Representative *April 2018 - March 2019*

Part of 14 membered team and won 2nd best club in BRCA.

Institute Student Mentor *July 2019 - April 2020*

Guided and counseled 5 undergraduate first year students.

Academic Mentor *August 2018 - November 2019*

Provided academic assistance sessions for first year students in Linear Algebra.