

Anant Kashyap

COMPUTER SCIENCE AND ENGINEERING · INDIAN INSTITUTE OF TECHNOLOGY DELHI

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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

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|------|---|-------|
| 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 login/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.