

NANDINI AGRAWAL

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<https://agrawalnandini.github.io/>



EDUCATION

B.Sc in Computer Science	Ashoka University	Ashoka University	2020	3.82 /4 CGPA
CLASS XII	Mayo College Girls' School	ISC	2017	95 %
CLASS X	Mayo College Girls' School	ISCE	2015	94 %

Subjects / Electives Linear Algebra, Introduction to Machine Learning, Operating Systems, Advance Programming, Probability and Statistics, Computer Networks, Calculus, Advanced Machine Learning, Blockchain and Cryptocurrencies, Discrete Mathematics, Unstructured Information Processing, Programming language design and Implementation, Algorithms Design and Analysis, Computer Security and Privacy, Computer Organisation and Systems, Federated Learning, Introduction to Programming, Managing Values of a Venture

Technical Proficiency Microsoft Office, REST, Selenium, Python, Socket Programming, Github, C Programming, Keras, Dart, Tensorflow, Hyperledger Fabric, Flutter, AWS, Unity3D, Node.js, Premiere Pro, Blockchain Development, JavaScript, PyTorch

INTERSHIPS EXPERIENCE

ASHOKA UNIVERSITY | Research and Software Development Intern Jun 2020 - Aug 2020

Created Covidbloc, a system involving an android mobile application and a web portal that uses blockchain powered contact tracing to track and prevent the spread of COVID-19. It is an improvement to the existing contact tracing schemes as we now use store the data on a blockchain database in a more secure, transparent and immutable way without revealing the identity of its users. Submitted an implementation paper at [SPACE 2020 conference](#).

KINGS COLLEGE LONDON | Research Intern for the DeCovIndia Project May 2020 - Aug 2020

I worked on scrapping and analysing different data sources and policies announced by the Indian government to tackle COVID-19

KOC UNIVERSITY | Research Intern Jul 2020 - Sep 2020

Implemented BlockSim-Net, a network based Blockchain Simulator. Paper accepted at [BASARIM, 2020](#)

METLIFE | Data Analyst Jun 2019 - Jul 2019

I worked on regression models like simple and multi variable linear regressions to develop a sales forecast model.

PROJECTS

Secure ML - Privacy Preserving Machine Learning Aug 2020 - Present

Understanding and implementing some machine learning algorithms using secure multi-party computation. I also worked on a small federated learning model on the MNIST dataset.

Conversational Chatbot - Machine Learning Mar 2020 - May 2020

The project dealt with building a conversational chatbot using a seq2seq model with attention. The github repository can be found here: <https://github.com/agrawalnandini/Chatbot>

Hyperfunds - Blockchain Mar 2020 - May 2020

A simple distributed Hyperledger application that can help faculty at Ashoka University reliably spend their research funds with approval from the right administrators. The github repository can be found here: <https://github.com/agrawalnandini/hyperfunds>

Colouring B&W Images to Coloured Images - Machine Learning Oct 2019 - Dec 2019

The project dealt with converting black and white images to coloured images using convolutional neural network and other deep learning models in Python. The GitHub repository can be found here: https://github.com/agrawalnandini/Coloring_Black_and_White_CNN

AWARDS AND ACCOMPLISHMENTS

Silver Medal for Academic Achievement in Computer Science | Ashoka University 2020

I was awarded the Silver Medal for Academic Achievement in Computer Science for securing the second highest GPA in my batch.

Magna Cum Laude Honors | Ashoka University 2020

I was awarded the Magna Cum Laude Honors for securing a GPA of 3.82 in my undergraduate years at Ashoka University.

Deans List | Ashoka University 2019

I have been on the deans list for 5 semesters in my three years of college for excellence in academics.

Winner of Triquetra Squash Championship(Women Individuals) | IIITD and DTU 2019

Secured the first position in an Inter-College Sports Fest in Women's Squash

School Colours for Excellence in Squash and Computer Science | Mayo College Girls School 2017

School colours is the highest form of appraisal given to a student for excellence in a particular field. I received the school colours for squash and computer science.

POSITIONS HELD

Teaching Assistant | Ashoka University Aug 2019 - Present

As a teaching assistant for Computer Organisations and Systems, Introduction to Computer Programming and now Computer Networks my role would be to help students learn in and outside the class. Create Assignments and Quizzes and grade them. Provide solutions for the assignments and quizzes. Be a point of contact between professor and students and resolve any issues and report about students performance.

Squash Captain and Computer President in School | Mayo College Girls' School Mar 2016 - Mar 2017

I was the captain of the squash school team having represented myself at national level competitions. I also was the head of the CS department.