NANDINI AGRAWAL

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EDUCATION

P.G.D (1 Year) in Computer Science	Ashoka University			2020	/4 CGPA
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	Unstructured Information Processing, Algorithms Design and Analysis, Computer Organisation and Systems, Introduction to Machine Learning, Programming language design and Implementation, Big Data by Jennifer Widom, Discrete Mathematics, Computer Networks, Probability and Statistics, Federated Learning, Blockchain and Cryptocurrencies, Introduction to Programming, Managing Values of a Venture, Advanced Machine Learning, Operating Systems, Linear Algebra, Computer Security and Privacy, Calculus
Technical Proficiency	C Programming, Node.js, Java web applications, PyTorch, JavaScript, Hyperledger Fabric, Keras, Blockchain Development, Flutter, REST, Python, Github, Unity3D, Tensorflow, AWS, Selenium, Dart, Vue.js, Socket Programming

INTERNSHIPS EXPERIENCE

KOC UNIVERSITY | *Research Intern*   Jul 2020 - Sep 2020

Implemented BlockSim-Net, a network based Blockchain Simulator. Paper **accepted** at BASARIM,2020. The presentation can be viewed here.

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. Submitted an implementation paper at SPACE 2020 conference.

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

Responsible for scrapping, analysing and classifying different data sources and policies announced by the Indian government to tackle COVID-19. The website for this project can be found here.

METLIFE | *Data Analyst*   Jun 2019 - Jul 2019

Worked on regression algorithms like simple and multi linear regression to develop a sales forecast model for analysing the sales of the company

PROJECTS

Secure ML - Privacy Preserving Machine Learning   Aug 2020 - Present

The project deals with implementing some machine learning algorithms using secure multi-party computation. I started with a federated learning model on the MNIST dataset and am currently working on a linear regression model in a secure two party setting.

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.

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

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.

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.

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

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.

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.

Publications

Blocksim-net| Journal name: Basarim | Publication date: Nov 6, 2020

Blocksim-Net is a simple, efficient, high performance, network-based blockchain simulator for Bitcoin and Etherum networks, to better reflect reality. The paper is available here. The journal publication is in progress.

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.