ASHISH ARORA

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Computer Science and Engineering ⋄ Final year, IIT Dharwad

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EDUCATION

Indian Institute of Technology Dharwad *August 2016 - Expected 2020*
Bachelor of Technology (B. Tech) CGPA: **9.01/10**

XII (Higher School Certificate) *2015-2016*
CBSE — Modern Vidya Niketan, Faridabad Percentage: **90.8**

X (Secondary School Certificate) *2013-2014*
CBSE — DAV Public School, Faridabad CGPA: **10**

EXPERIENCE

Researcher at BISITE Research Group August 2019 - Present
Prof. Juan Manuel Corchado *University of Salamanca*

· Working with Intelligent PPE (Personal Protective Equipment)

Researcher at IIT Mandi August 2018 - April 2019
Prof. Aditya Nigam *IIT Mandi*

· Applications of Deep Learning in the field of Biometrics

Summer Internship at BISITE Research Group June 2019 - July 2019
Prof. Juan Manuel Corchado *University of Salamanca*

· Working on Edge Computing Platform

Summer Internship at IIT Mandi May 2018 - July 2018
Prof. Aditya Nigam *IIT Mandi*

· Applications of Deep Learning in the field of Biometrics.

Non-Governmental Organization February 2018 - March 2018
Deshpande Educational Trust *Hubli*

· Designed Curriculum on trending topics like CNC.

PUBLICATIONS

FDFNET: A Secure Cancelable Deep Finger Dorsal Template Generation Network Secured via. Biohashing *22-25 January 2019*
IEEE International Conference on Identity, Security and Behavior Analysis
Avantika Singh, Ashish Arora, Shreya H. Patel, Gaurav Jaswal, Aditya Nigam

Comprehensive study of cancelable biometric templates along with a novel case study on finger dorsal template protection *Accepted*
Journal of Banking and Financial Technology (JBFT)
Avantika Singh, Ashish Arora, Gaurav Jaswal, Aditya Nigam

CanOrNet: Cancelable ordinal deep feature based iris template generation with holistically extended security analysis *Under Review*
Novel Insights on Ocular Biometrics in Image and Vision Computing
Avantika Singh, Ashish Arora, Aditya Nigam

RESEARCH PROJECTS

Intelligent PPE (Individual Protective Equipment)   August 2019 - Present
Prof. Juan Manuel Corchado   *BISITE Research Group*

· Creating ML models to improve OHS(Occupational health and safety) for workers.

Regression model building on Jetson boards   June 2019 - August 2019
Prof. Juan Manuel Corchado   *BISITE Research Group*

· Working on project PLATINUM, edge computing platform.

Secure Encrypted Template Generation for Iris ROI Strip   August 2018 - January 2019
Prof. Aditya Nigam   *IIT Mandi*

· Building a CNN model with non-trainable ordinal Gaussian filters.
· Encrypted Iris ROI features using Encryption scheme based on Hyperchaotic Rossler Map.

Cancelable Biometrics using Deep Learning   May 2018 - July 2018
Prof. Aditya Nigam   *IIT Mandi*

· Used Star and Bubble Ordinal Patterns based LBP-CNN to extract features and transformed using Bio-Hashing into a non-invertible and revocable template.

Concept Analysis for Class Cohesion   September 2017 - Present
Prof. Rushikesh K. Joshi   *IIT Bombay*

· Analysis of different metrics used in calculating cohesion of a class.
· Developed an efficient metric using Graph Algorithms which is similar to ICBMC.

PROGRAMMING SKILLS

Programming Languages	Python, C/C++, AWK, Bash, Java, MATLAB, LaTeX
Python Packages	Numpy, Pandas, Matplotlib, Scipy, Jupyter
ML/DL Tools	Tensorflow, Keras, PyTorch, OpenCV
Web Development	HTML, CSS, JavaScript, PHP, MySQL, PostgreSQL
Tools	AWS, ROS, Linux, Git, GDB, GNUPlot, AutoCAD

COURSEWORK

Computer Science	Distributed System*, Reinforcement Learning* (*Ongoing Courses)
	Artificial Intelligence, Introduction to ANN and DL
	Computer Programming, Data Structure and Algorithms
	Design & Analysis of Algorithms, Database Management Systems
	Discrete Mathematics, Automata Theory, Computer Networks
	Computer Architecture, Operating Systems
Mathematics	Calculus, Linear Algebra, Data Analytics
	Number Theory, Probability and Random Processes
MOOC's	Machine Learning (Coursera, Andrew Ng)
	Specialization in Deep Learning

ROLES AND RESPONSIBILITIES

AI Club Secretary : IIT Dharwad	*March 2019 - Present*
Teaching Assistant : Operating Systems Lab	*January 2020 - Present*
Teaching Assistant : Data Structures and Algorithms Lab	*August 2018 - November 2018*
Volunteer : International Workshop on Applied Deep Learning, IIT Mandi	*July 2018*
Event Organizer : IIT Dharwad	*August 2017 - November 2017*