ASHI AGARWAL

2660 Norberry Crescent, Ottawa
613-404-3833
ashiagarwal @cmail.carleton.com

Experience

Job Title	Company	Location	Duration	Description
Teaching Assistant	Carleton University	Ottawa	01st Sep 2020 - Present	Solved and graded lab sheets and tests for SYSC 3110 and SYSC 4101
Intern	Samsung Electronics India Ltd.	NOIDA, India	19th Feb – 20th April 2020	Worked in Software Quality Assurance team, tested software of Smart televisions.
Summer Training	Amity University	NOIDA	15th may, 2016- 31st may, 2016	Worked in image processing using MATLAB on segmentation of optic disc from fundus images.

Projects

AI Model Deployment: DeepEye   **Sep '18 – Feb '19**
A web application was developed as a final year project which aims to classify the given input fundus image as the glaucomatic or the non-glaucomatic case. The project was funded under CST UP Engineering Project Grant Scheme. **https://deepeye1.herokuapp.com/**

Image Processing: A Novel Edge Detection Algorithm   **Nov '16 – July '17**
An edge detection algorithm was implemented on MATLAB which outperformed the existing MATLAB edge detection functions. The algorithm was based on the horizontal and vertical differentiation of image data followed by peak and valley detection.

VHDL for Image Processing: Median Filter   **Nov '16**
A testbench VHDL code was developed to read image data and implement median filter on it. The resultant image was saved in form of a text file.

Publications

Automated Computer Vision Method for lesion Segmentation from Digital Dermoscopic Images, 4th UPCON 2017, published in IEEE Digital Library (October 26-28, 2017).
DOI https://doi.org/10.1109/UPCON.2017.8251107

A Region Growing Based Imaging method for Lesion Segmentation from Dermoscopic Images, 4th UPCON 2017, published in IEEE Digital Library (October 26-28, 2017).
DOI: https://doi.org/10.1109/UPCON.2017.8251123

Automated Skin Lesion Segmentation using K-Means Clustering from digital Dermoscopic Images, TSP17, published in IEEE Digital Library (July 5-7, 2017), Barcelona, Spain.
DOI: https://doi.org/10.1109/TSP.2017.8076087

Automatic Imaging Method for Optic Disk Segmentation using Morphological Techniques and Active Contour Fitting, 9th IC3, published in IEEE Digital Library (August 11-13, 2016).
DOI: https://doi.org/10.1109/IC3.2016.7880227

Education

Degree title	Institution	Year	CGPA
MASc. (Systems and Computers)	Carleton University, Canada	Jan 2020 - Present	3.83 (GPA)
B.tech (Electronics and Communication)-3 Continent	Amity University, NOIDA, India	July 2015 – May 2019	9.22
XII (senior secondary)	Mahamaya Balika Inter College, India	April '14 – March '15	93.5%
X (secondary)	Mahamaya Balika Inter College, India	April '12 – March '13	9.2 (CGPA)

Scholarships and Grants

CST UP Engineering Project Grant Scheme: **December '18**
Awarded with 20,000 INR to complete the engineering project which was shortlisted by the Council of Science and Technology, Uttar Pradesh Government.

KWSE Travel Grant: **August '18**
Awarded with a 4 day fully funded travel grant to Daejeon, South Korea to attend Young Women Scientist Smart Sister Workshop by Korean Women Scientists and Engineers.

DST Funded Project: **May '16 - June '16**
Worked on a project funded by Department of Science and Technology, Indian government. The work resulted in a publication titled as "Automatic Imaging Method for Optic Disk Segmentation using Morphological Techniques and Active Contour Fitting".

Dr. Ashok K Chauhan On-Admission Scholarship: **2015 - 19**
Awarded with 100% merit based tuition waiver for the following sessions: 2015-16, 2016-17, 2017-18, 2018-19

Technical Skills

Languages: Python, JAVA, C/C++, Embedded C, VHDL, Verilog

Software Packages: Tensorflow, Keras, Flask, OpenCV, MATLAB, Numpy, Scipy

Core Competencies/ Areas of Interests: Image Processing, Signal Processing, Deep Learning, Machine Learning

Achievements

Young Women Scientist Camp and Smart Sister Workshop, Daejeon, South Korea

Selected in top 2 women scientists to represent INDIA and was the youngest participant there: 24th-26th August 2018

International Science Olympiad (Conducted by NOF)
Scored 610 International rank: Session 2014-15