

Sushmita Das

EDUCATION ✉ sushmitd@andrew.cmu.edu  [linkedin.com/in/sushmita-das09](https://www.linkedin.com/in/sushmita-das09)  [sushmitadas.github.io](https://github.com/sushmitadas)

College of Engineering, Carnegie Mellon University (CMU)	4.0/4.0
MS in Electrical and Computer Engineering	Jan. 2021 – May 2022
Assam Engineering College	81.7/100
BE in Electrical Engineering	Aug. 2016 – Sept. 2020

PUBLICATION

Sushmita Das, Ankur Deka, Yuji Iwahori, M. K. Bhuyan, Takashi Iwamoto, Jun Ueda, *Contour-Aware Residual W-Net for Nuclei Segmentation*, KES 2019 special session on Computational Intelligence System and Applications.

EXPERIENCE

Research Assistant , Carnegie Mellon University	USA
Advisors: Raj Rajkumar, Iljoo Baek	Sept. 2021 – Present
<ul style="list-style-type: none">• Areas: Bird Eye View (BEV) Satellite Image Segmentation for navigation, Deep Learning.• Helped in creating a new dataset and adapted the W-Net model for the task of multiclass road segmentation.• The W-Net model outperformed the U-Net model.	
Summer Intern , Carnegie Mellon University	USA
Advisors: Thomas Sullivan, Tamal Mukherjee	Sep. 2018 – Present
<ul style="list-style-type: none">• Areas: Deep Learning, Computer Vision.• Developed driver alert system on Jetson Xavier with pre-trained object detection models - Mask RCNN, YoloNet, MobileNet.	
Research Intern , Iwahori Computer Vision Lab, Chubu University	Japan (Remote)
Advisors: Yuji Iwahori	Sep. 2018 – Present
<ul style="list-style-type: none">• Areas: Medical Image Segmentation, Deep Learning.• Developed a deep learning based model, Contour-Aware Residual W-Net (WRC-Net), consisting of double U-Net for nuclei segmentation and evaluated it on real Hematoxylin and Eosin stained cell images.• It showed better overall performance against previous state-of-the-art nuclei segmentation methods.	

PROJECTS

A/B Testing <i>R, SQL, Tableau, Qualtrics</i>	Oct. 2021 - Dec. 2021
<ul style="list-style-type: none">• Conducted a survey on 200 people and performed OLS regression to find the effect of providing the reading time on the willingness to read the article in a domain of interest and analyzed the outcome of interest across various covariates.	
Creative Data Analytics <i>SAS Enterprise Miner, Tableau</i>	Aug. 2021 – Oct 2021
<ul style="list-style-type: none">• Performed data analysis on airline customer data to improve customer satisfaction rates by using unsupervised approach like clustering and supervised approach like decision tree.• In addition, used predictive models like neural networks for analysis.	
Animal Classification <i>Python, Scikit-learn, Keras, Tableau</i>	Aug. 2021 – Dec 2021
<ul style="list-style-type: none">• Performed two-class and multi-class animal classification using Support Vector Machines(SVM), Convolutional Neural Network and compared their performance.• In addition, used CNN as a feature extractor and SVM as a classifier for the classification purpose.	
Cyclist Data Analysis <i>SQL, Tableau</i>	June. 2021 – July. 2021
<ul style="list-style-type: none">• Analysed the company data from April-2020 to May 2021 to determine how customers with membership and those without membership use the services differently.	
Bachelor Thesis Project <i>Arduino, MIT App Inventor</i>	June. 2021 – July. 2021
<ul style="list-style-type: none">• Devised a voice controlled robot wheelchair for disabled people. Developed the hardware robot, controlled through an arduino micro controller unit and an android app using the MIT app inventor.	

TECHNICAL SKILLS

Languages: Python, R, C/C++.
Developer Tools: Jupyter Notebook, Matlab, Octave.
Libraries: Scikit-learn, Pandas, NumPy, Matplotlib, Keras, PyTorch.
Analytics and Data Mining Tool: SAS Enterprise Miner, SQL.
Visualization Tools: Tableau.
Miscellaneous: Latex.

COURSES

Introduction to Machine Learning, Pattern Recognition Theory, Neural Signal Processing, A/B Testing Design and Analysis, Business Intelligence and Data Mining SAS, Google Professional Data Analytics Course.