Ayush Ashish Shirsat

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Data Analyst with academic experience in designing modelling techniques that translate complex data into intuitive insights and visualizations. Has experience in working independently and in cross-functional teams to provide analytics and data models to enable organizations make critical strategic decisions.

EDUCATION

Boston University College of Engineering **(Sep 2018 - May 2020)**
Master of Science in Electrical and Computer Engineering (Specialization in Data Analytics)

Birla Institute of Technology & Science (BITS), Pilani - Dubai Campus **(Aug 2014 - May 2018)**
Bachelor of Engineering (Honours) in Electronics & Communication Engineering

** Relevant Coursework - Deep Learning, Learning from Data, Artificial Intelligence, Computational Tools for Data Science, Product Design, Design by Software and Advanced Data Structures*

EXPERIENCE

Boston University, Boston, USA - *Grader - ECE Department* **(Sep 2019 - Dec 2019)**

- Graded Assignments and tutored a class of 50 students for course Computational Linear Algebra

Mahindra & Mahindra Ltd, Mumbai, India - *Summer Intern - Corporate IT* **(Jun 2016 - Aug 2016)**

- Assisted the technical lead in compiling and documenting data reports of customers
- Worked with project team in understanding client needs and keys to provide IT infrastructure solutions
- Helped the company design network infrastructure on a new floor in the building and tested its simulation using Cisco Packet Tracer
- Presented a technical report on Blue Coat proxy and its utility in IT environment

SOFTWARE SKILLS

Languages: Python, C/C++, SQL

Databases: MySQL, SQLite, PostgreSQL, MongoDB

Software/Tools: Tableau, TensorFlow, Keras, PyTorch, OpenCV, NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, PySpark, MATLAB, Git, Jupyter Notebooks, Microsoft Excel, Windows and Linux

PROJECTS

Analysing EfficientNets in Grading Diabetic Retinopathy **(Jan 2020 - May 2020)**

- Implemented a family of state-of-the-art models called EfficientNets using TensorFlow
- Performed data cleaning by removing images of poor contrast/ quality
- Achieved Quadratic Weighted Kappa score of 85.6% in grading Retinopathy which surpassed human score of 78%

Haverhill 311 **(Sep 2019 - Dec 2019)**

- Communicated with client (Director of Public works, Haverhill) to understand their needs and provide solutions
- Performed exploratory data analysis and visualizations using Seaborn and Matplotlib in Python
- Built a dashboard for GIS data using Folium for key insights into origination of requests
- Predicted trends in user complaints based on seasons using SVM and Linear regression

Data-driven Enhancement of JPEG compressed images **(Jan 2019 - May 2019)**

- Implemented Deep learning models such as SRCNN and ARCNN using Keras with TensorFlow backend
- Achieved 10%-15% better PSNR with reduced blocking artifact in output images when compared to JPEG images

Twitter Analysis **(Sep 2018 - Dec 2018)**

- Streamed tweets using Tweepy API and extracted the ones with images
- Used Google Cloud Vision API to caption the images and stored top 5 media descriptions
- Built databases in MySQL and MongoDB to store Tweet, User ID, media file and media description

Team IFOR **(Aug 2016 - May 2018)**

- Provided solutions to clear oil spills in sea using drones and hydrophobic material to client company called OILEX
- Programmed an autonomous drone to detect ground robots using Ellipse detection algorithm in OpenCV
- Laid down the framework for team to use Deep learning in future using YOLO algorithm in TensorFlow
- Presented a technical paper at International Aerial Robotics Competition Symposia, Georgia Tech, USA