Shanuj Shekhar

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Education

SUNY Stony Brook **Aug 2019 – Dec 2020** ***(Expected)***

- Masters in Computer and Information Science | State University of New York at Stony Brook | **GPA: 3.61/4.00**

NIT Jalandhar **Aug 2015 – May 2019**

- Bachelors of Technology in Computer Science and Engineering | Dr. B.R.Ambedkar National Institute of Technology | **GPA: 8.53/10.00**

Languages and Technologies

- Code mainly in **Java & Python**; Proficient in **JavaScript, HTML, CSS, D3.js**; Familiar with **C/C++, C#**;
- **Machine Learning & Data Analysis:** PyTorch, Tensorflow, Numpy/Scipy, Pandas, Scikit-learn, Matplotlib, OpenCV, nltk
- **Other Tools:** Google Colab, Jupyter, LaTeX; Visual Studio; Eclipse; Sublime Text; Github; Unity Tool; Blender; Flask; Heroku; Bootstrap

Work Experience

Mozilla Fix-The-Internet Open Lab - Developer **April 2020 – June 2020**

Internship || Python, HTML/CSS/Javascript, Flask, Heroku

- Developed an online platform for matching donation related resources like food, clothing etc.using relevant tweets. The website lists donation/request tweets location wise, based on search. Website Link
- Implemented Naive Bayes Classifier for classification of tweets (Donation/Non-Donation, Donor/Requestor & Resource Type classification), with an accuracy of 80%, after parsing them using standard NLP techniques. (Project Link)

Cadence Design Systems - Summer Intern **June 2018**

Text Detection in Images || C++, Microsoft Visual Studio 2017

- Extracted text from Microprocessor Pin Diagram images. Using Posterior Probability concept text accuracy was improved

NSUT, Delhi - Research Intern **June 2017**

Reusable Hybrid Test Automation Framework for Web Based Scrum Project || Java, Selenium Tool 2.0

- Achieved Automation Testing on Amazon, Flipkart e-commerce websites || **Published** in **Journal of Applied Science and Engineering**, Taiwan, 2018 (Publication Link)

Technical Experience (Projects)

- **Smart IoT Climate Control System** (Jan 2020 – Ongoing). Currently developing a smart IoT climate control system by leveraging machine learning techniques for damper actuation (when to turn on heating/cooling) || Deep Neural Networks, PyTorch (Project Link)
- **D3 Visualization of COVID-19 Pandemic** (Mar 2020). Created a dashboard for visualizing COVID-19 cases in the USA, how the disease spread and how it affected the country's unemployment rates || Python, D3.js, Flask (Project Link)
- **Detect Heavy Drinking Episodes** (Feb 2020). Implemented Random Forest Classifier to identify intoxicated individuals according to their TAC labels and detect drinking episodes using accelerometer samples from their mobile devices || Python (Project Link)
- **Augmented Reality Video Game** (Jan 2020). Designed a game in which a user can interactively build an augmented 3D scene on a planar surface in the real world || C#, Unity Tool, Vuforia (Project Link)
- **Entity Description using Phrase Generation** (Nov 2019). Generated phrases to describe an entity in a sentence using Natural Language Processing and Natural Language Understanding. Model Architecture - Bi-LSTM (2 layer) model with attention function || Python (Project Link)
- **Emotion Recognition** (Jun 2019). Performed facial expression analysis in near real-time live webcam feed & classified 8 different emotions using Support Vector Machine with accuracy of 67% || Python, OpenCV (Project Link)
- **TFIDF** (Feb 2017). Calculated the term frequency for terms present in 2000 documents || Java (Project Link)

Relevant Coursework

- ML, Visualization, NLP, OS, Virtual Reality, Data Mining, Data Structures & Analysis of Algorithms, AI, Advanced Programming in Java

Additional Experience and Awards

- Completed **JP Morgan & Chase Software Engineering Virtual Experience** (Summer 2020) (Project Link)
- Acquired **Top 10 Rank** in Undergrad in class of Computer Science