UTKARSH SHARMA

Shiv Nadar University ⋄ India

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EDUCATION

Shiv Nadar University, Greater Noida, India **July 2017 - July 2021**
Bachelor of Technology, Computer Science and Engineering **CGPA: 8.12/10**

Selected Coursework:-
Object Oriented Programming in Java, Machine Learning through R, Probability and Statistics, Data Structures and Algorithms, Research Methods in Computing, Discrete Mathematics.

INDUSTRY EXPERIENCE

Dell Technologies **August 2021 - Present**
Software Engineer-1

- Responsible for developing REST APIs for enterprise analytics applications using Nodejs and Python.
- Increased the enterprise applications' CI/CD maturity scores by 32% as a member of the DevOps engineering team, which improved the end-user experience of more than 16,000 employees globally by making the applications more secure and stable.
- Involved in stretch projects of TECH CSR (Corporate Social Responsibility), which uses Machine Learning to create in-house products to help underrepresented communities.

RSA Security **March 2021 - June 2021**
Undergraduate Software Development Intern

- Developed SAML 2.0 authentication integrations with 16 different SaaS providers. Worked on ML models based on KNN to classify security vulnerabilities.
- Created integrations that support Single Sign-On (SSO), RADIUS, and Relying Party protocols using RSA Cloud Authentication.

Dell Technologies **May 2020 - July 2020**
Undergraduate Software Development Intern

- Created customized Workday integrations for cloud-based applications to manage and analyze HR and Finance data for APAC (Asia-Pacific) employees.
- Developed a recommendation tool that was deployed to production using Natural Language Processing that extracts the data from resumes with the help of NLTK and uses Cosine Similarity to recommend a suitable candidate according to the job description from a pool of 200 candidates.

AmarUjala Web Services **May 2019 - July 2019**
Machine Learning Intern

- Implemented Sentiment Analysis, Intent Analysis, Subject Verb Object (SVO) detection, and auto keyword tagging to create a personalized news feed for more than 8000 users on Amarujala.com

RESEARCH EXPERIENCE

The Role of ESG in Sustainable Development: An Analysis through the Lens of Machine Learning. ***Utkarsh Sharma****, *Akshat Gupta**, *Sandeep Kumar Gupta**
Accepted *in 2021 IEEE International Humanitarian Technology Conference* [**Paper**]

- Developed a novel dataset housing ESG parameters for conducting regression analysis of more than 1400 corporations listed in the stock exchanges throughout the world.
- Presented a framework for region agnostic evaluation of ESG data supported by regression models.
- Built a random forest regressor to accurately predict the growth variables such as "profit margin" and "return on equity" and increased the adjusted R square by 5%.

(* = equal contribution)

PROJECTS

Blind Navigation Support System [GitHub] [Certificate]

- Created an application using React Native to help visually impaired employees navigate. The application was internally deployed in the production environment to 4 different physical sites of Dell Technologies.
- Leveraged computer vision (OpenCV) to gather and process floor and infrastructure data and created a speech-enabled navigation system using Accelerometer, Gyroscope, Proximity, and Magnetic field sensors of the mobile device.

Efficient Framework for addressing Covariate Shift (EFCS) [GitHub]

- Created a framework to reduce the computational cost for finding a pair of the correct re-weighting algorithm (KMM, RuLSIF, KLIEP) and Deep Learning model (DenseNet121, ResNet50, and a baseline CNN) to tackle Covariate Shift get the most optimal model performance.
- Proposed methodology encompasses a comprehensive empirical evaluation across MNIST-C, CIFAR10-C, SVHN, and STL-10 datasets.

Services and Products Recommendation System [GitHub]

- Created a web application using Flask(Python framework) powered by Content-Based filtering that used web activity data to recommend products and services.
- The machine learning model provided recommendations from 300 products and 20 different services and used user feedback to improve the recommendations.

Public Tweets Sentiment Analyzer [GitHub]

- Created a web application to analyze and classify the public tweets into three different sentiments.
- Users could see the statistical breakdown of the sentiments for 5000 recent tweets by providing the hashtag in the search field.

Smart games: Tic-Tac-Toe and Sudoku [GitHub] [GitHub]

- Developed an intelligent Sudoku solver that uses backtracking combined with constraint satisfaction to provide the solution in the most optimal time.
- Created an interactive Tic-Tac-Toe in java that uses magic square game strategy to play against a human.

TECHNICAL STRENGTHS

Programming Languages:	C, C++, Python, Java, JavaScript, R, SQL
Technologies:	React, React Native, Angular, Flask, Latex, Github, Gitlab, Docker
Libraries:	Tensorflow, Pytorch, Keras, NLTK, OpenCV, Pandas, Numpy

ADDITIONAL EXPERIENCE AND ACHIEVEMENTS

- Dean's list Awardee for academic excellence (top 10% of School of Engineering).
- Awarded 80% tuition fee waiver at the time of admission to the undergraduate institute (Shiv Nadar University).
- Winner of the IDEAforce Hackathon conducted by Dell Technologies.
- Volunteer for Feeding India (A non-profit organization with the aim to reduce hunger in India and provide food for underprivileged communities.)
- Completed a summer certificate program in Advanced Data Structures and Algorithms in Java. [Certificate]
- Online Certification: 'Machine Learning A-Z™: Hands-On Python & R In Data Science.' [Certificate]