Himanshu Goyal

Analyst, Citi | Data Scientist

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EDUCATION

- **Indian Institute of Technology, Delhi** — Delhi, India
  Bachelor of Technology in Textiles; GPA: 3.20 (8.01/10.0) — *Aug,13 –July,17*
  Relevant Coursework : Data Structures &Algorithm, Machine Learning, System Designing, Macro-Economics
- **Deep Learning Specialization** — Online
  CourseEra by Andrew NG; GPA: 3.80 (9.5/10.0) — *Oct'19- Jan'20*
  Coursework : Neural-Network & Deep-Learning, Hyper-Parameter Tuning & Regularization, CNN, Sequence Model
- **CFA Level-3 aspirant** — Pune, India
  Cleared Level-1 and Level-2 in first attempt — *Dec'18- Present*
  Coursework : Derivatives & Economics, Financial Reporting Analysis, Portfolio Management, Fixed Income
- **Class 12, CBSE** *(90.60%)* — April'12
- **Class 10, U.P. State Board** *(79.16%)* — April'10

WORK EXPERIENCE & PROJECTS

- **TwoPaksh.tech, Co-Founder, Tech Head** | Footfall Tracking and Surveillance systemPune [Oct,19-July,20]
  - **IOT surveillance system** : Created a Face-Recognition solution to track and authenticate user entry in any indoor gated community like office, gym etc.The System was deployable in any IOT device making onboarding cost free.
  - System Utilizes a pre-trained **MTCNN + FaceNet** based architecture to output 128-Dimension Face Embeddings and classify various persons for specific community.
  - Implemented **Transfer learning** approach to modify pre-trained **Inception Model of Face-Net** to better perform specifically for the user of gated community and to self-improve accuracy of system over time.
  - System was able to generate crucial analytic like footfall time heatmap, mood of users, user serving time etc. due to the autom ation of authentication System. This help business take wise decisions.

- **Wobb.in, Technology Head,Part Time** | Start-up for Influencer Marketing Gurugram, [July,20 - Present]
  - Platform to connect Brands and influencer also tracking user engagement rate and generating analytics for brands.

- **Citigroup, Technical Analyst** | Treasury & Trade Solutions, Commodities BU   Pune [Aug,17 - Oct,19]
  - **Trade Imaging and Messaging System (TRIMS) Recommendation Engine**: Envisioned, developed and deployed a machine-learning powered recommendation system to assist employees doing data entry from trade documents. The solution has increased efficiency for specific fields by up to 75 %.
  - Led a team of 7 developer and 2 junior developer working extensively on scikit-learn, pandas, fuzzywuzzy and Flask.
  - **AMl and Fraud Detection**: Developed unsupervised machine learning solution for detecting financial market manipulations i.e. Wash Trading. Solution helped in reducing false positives by 78 %.
  - Received an overall **rating of 2* & 2*** for last appraisal cycle, awarded only to top 5% of the employee in CITI
  - Received **Citi Applause Award** & **Citi Silver Award** recognizing individual contributions for various initiatives

- **IIT Delhi B-tech Thesis** | Yarn cross-section Area Image processing   [Aug-Dec,16]
  - Automated the process of marking microscopic fibre boundary in a yarn cross-section image via Computer Vision
  - Generated CNN model was able to distinguish different kind of fibres & marking all boundary with an R value of .95

- **Internship, SmallDay Services** | Developed Transliteration tool for Vernacular Languages   [May-Jul,16]
  - Developed a Tries based Decision-tree model which converted text from one given language to other trained languages
  - Received a **Pre-Placement-Offer & CEO level Award of appreciation** for incredible work & enthusiasm

- **Handwritten Digit Recognition** | Open to all Kaggle competition   [Nov-Dec,16]
  - Implemented various ML algo like CNN, Random Forest etc. for recognizing the hand written number in an image
  - Stand at an all-time best ranking of 120 among thousands of participant world wide

- **Data Structures and Algorithms** | Implemented algorithms to solve real world problems
  - Employed Queuing Theory & Priority Queue for simulating in-store queuing model and optimizing the number of billing-counter in a store against predicted Average waiting time and probability of having to wait for service

- **MacroEconomics Paper** | Analysis of Direct Benefit Transfer Scheme in India, Co-Author, Int. Journal, IJETM

Technical Proficiency

- **Technology**: Python, Java, SQL, R, Matlab, NumPy, TensorFlow, Android/IOS app Development
- **Tools**: Jupyter, PyCharm, Git, Eclipse, MySql, DataFrame, TeamCity, uDeploy, AWS
- **Theoretical**: Machine-Learning, Deep-Learning, Data-Structures, Financial-Market, Application Architecture Designing

Engagements

- **Verboculary**: Developed a vocabulary building app, which allow user to learn words in order of their importance for given exam. Developed the word ranking algorithm by analysing a large database related to given exam resources
- **Engineering Excellence, Level-2 Award, CITI** : Awarded with engineering excellence level-2 award for showing skills related to agile development and following good coding practises
- **President, Social Innovation cell, IIT-D:**:   Developed products for solving social problems with innovation
  - Lead teams of tech volunteer from IIT-Delhi to successfully develop various products for social good like 2048 Games for Blind, Affordable Blood Donation bed, Food-Waste management by in-house Biogas plant etc.
  - Taught a batch of 30 underprivileged students regularly for competitive exams like IIT-JEE
- **Accessible India Campaign**: Redesigned NCERT text-book experiment for braille version of book by HR ministry
- **Microsoft code fun do**: 2-day long Hackathon for developing mobile apps, finished in Top 20 teams for android app
- **Event coordinator,Antarang-16, IITD:**: Established and maintained budget for annual departmental fest.

Skills and Interest

- **Interests**: Gyming, Playing Badminton, Running, Adventure-Sports, Swimming, App Dev., Open-Source contribution