

UTKARSH BARANWAL

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EDUCATION

Master of Science, Computer Science(Specialization in AI)

August 2021-May 2023

University of Southern California, Los Angeles, California

GPA 3.50

Courses: Analysis of Algorithm, Foundation of Artificial Intelligence, Machine Learning, Applied Natural Language Processing

Bachelor of Engineering, Computer Engineering

July 2014-May 2018

Thapar Institute of Engineering and Technology, Patiala, Punjab

GPA 3.78

SKILLS

- **Programming Languages** - Golang, Python, C/C++
- **Database:** MySQL, Redshift, Aerospike, Redis
- **Machine Learning Libraries:** Numpy, Matplotlib, Pandas, Pyspark, Scikit, OpenCV, Pytorch, Tensorflow
- **Data Stream Processing Framework:** Kafka, Spark, AWS Glue, Hadoop
- **Other:** Linux, Git, Docker, Jenkins, Databricks, JupyterHub, S3 bucket, Grafana, Sumo Logic, Newrelic

EXPERIENCE

Software Engineer, Grab

January 2021-July 2021

- Automated process for whitelisting and setting credit limits for users by developing ETL data pipeline.
- Enhanced existing REST APIs in terms of reliability by increasing unit test cases coverage more than 75%.
- Collaborated in launch of driver pay later product on Grab platform by adding REST APIs and devising Grafana dashboard to track the product performance in real time.

Software Engineer, Goibibo

June 2018-November 2020

- Led Dynamic Discount project to decide promo discount value on flights price according to user, sector, competitor price and demand elasticity of price at real-time using multi arm bandit with help of A/B experiment and able to reduced burn by 20K dollars/daily with increased net margin by 18K dollars/daily on Indian sectors.
- Developed data pipeline which handles 10M requests/second for logging event data for each step of flight bookings.
- Fabricated REST APIs to generate flights listing in real time which handles throughput of 500K request/second.
- Analyzed different flight features and built Flight Fare Predictions model using machine learning algorithms Random Forest & Gradient Boosted Tree to decide flights' fare in next five days.

Data Science Intern, MakeMyTrip.com

January 2018-June 2018

- Collaborated with data science team to produce hotel rank relevant to user and queries.
- Applied 'Learning To Rank' algorithm to produce hotel ranks and able to get NDCG value of 0.47 for the hotel ranks.

PROJECTS

Image Segmentation on Street Images (Using Python, FastAI and Numpy)

January 2022-February 2022

- Designed semantic segmentation model to detect lanes and different lane marks in Taiwan's traffic images.
- Implemented Unet (CNN architecture based) model and able to achieve mean IOU of 0.56 on Taiwan's traffic images.

Homeless Encampments Detection in LA Streets (Using Python, Pytorch and Numpy) August 2021-December 2021

Guidance By: Professor Seon Kim, University of Southern California

- Applied computer vision to detect homeless encampments from street images of Los Angeles.
- Developed YOLO model and detected homeless encampments with precision 0.86 and F1-score 0.83.

Neural Network for MNIST Digit from Scratch (Using Python, Numpy and Pandas) October 2021-November 2021

- Trained Neural Network using Sigmoid & Softmax activation functions and Stochastic Gradient Descent optimizer.
- Able to achieve accuracy of ~94.8% on the test set using 10000 images for training.

Game Playing AI Agent for Board Game Go (Using Python and Numpy)

September 2021-October 2021

- Constructed a Game Playing AI agent using Alpha Beta pruning with a depth of three moves for a 5x5 Go board.

HONORS AND AWARDS

- Part of team who won best presentation award in the Datafest Fall 2021 at the University of southern California.
- Secured Grabber of quarter (employee of quarter) award for January 2021-March 2021 at Grab.
- Awarded Go-Tripper of quarter(employee of quarter) for quarter July 2019-September 2019 at Goibibo.
- Achieved All India Rank 4 in Worldquant summer training for fabricating efficient trading strategies in 2016.