Ashutosh Tiwari

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EDUCATION

Indiana University	Bloomington, IN
Master of Science in Data Science (Computational Track)	*Aug. 2021 – Present*
National Institute of Technology	Patna, India
Bachelor of Science in Computer Science	*Aug. 2011 – May. 2015*

WORK EXPERIENCE

Software Dev Engineer 2   Jan. 2019 – Jul. 2021
Swiggy   *DATA SCIENCE PLATFORM, DATA ACQUISITION PLATFORM*
- Worked on Feature Store in DSP which provides on-demand features to DSP models in sub ms latencies on a very large scale.
- Started Forecasting and Correlation Platform which is used by teams to forecast concerning time series.
- Data Acquisition Platform is a tool used to capture, schedule APIs (mostly third-party or other open APIs). The architecture includes a proxy service, request generation module, transformation module, and scraping module.

Software Development Engineer(ML)   Sep. 2017 – Jan. 2019
Flipkart   *SEARCH RELEVANCE, QUERY INTENT*
- Involved in improvements in search intent model(CRF based) currently in production, identifying error classes, coming up with solutions, and fixing them.
- Worked on Fast text based query store classifier, which predicts the category of a query.
- Wrote the first workflow to automate training and auto-deployment of various search models. First was written using Luigi and later migrated to Airflow.
- Wrote a generic framework using Airflow which at runtime creates generic dags for different ML models and orchestrates their training to deployment flow, including data and model validations.
- Used Cascading to extract data from various user events and then convert it to a form that can be used as training data for our models.

Software Development Engineer   Sep. 2016 – Sep. 2017
Groupon   *BACKEND*
- Worked on a component called Cyclops which is the interface to Customer Reps. They use it to resolve customer queries and requests which is live in all countries in which Groupon operates.

Software Engineer   Sep. 2015 – Aug. 2016
NetSpeeed Systems   *GRAPH ALGORITHMS, NETWORK ON CHIP*
- Single-handedly worked on many modules like Virtual Channel Arbitration, Polarity based Arbitration, Multi-Cast Filtering, Structural Latency Breakdown, etc.

SELECTED PROJECTS

DeepFoodie | *Python, Tensorflow, Self Supervised Deep Clustering, Deep Learning, Transfer Learning*   Code/Report
- Clustering dishes on basis of their ingredient embeddings

Continuous Dominant Set Repair | *C++, Graph Algorithms, Guha and Khuller's Algo., Greedy*   Code
- Repairs a broken link in Continuous Dominant Set in $O(\Delta^2)$, where Δ being the avg cardinality of connected graph

Humana Mays Healthcare Analytics Case Competition | *Boosted Trees, Feature Engineering*   Code
- 11th rank on leaderboard.

Groupon Geekon 2017, deal recommendation | *Python, Tensorflow, SVD, Collaborative Filtering*   Code

TECHNICAL SKILLS

Frameworks/Libraries/Tools: Tensorflow, Pytorch, Sklearn, Numpy, Pandas, Matplotlib, AWS
Concepts: Computational Machine Learning, NLP, Computer Vision, DL, Akka, Distributed Systems, Spark, HDFS

RELEVANT COURSES SO FAR

Computational Machine Learning(CSCI-B555), Deep Learning Systems(ENGR-E533), Reinforcement Learning(CSCI-B659), Computer Vision(CSCI-B657)