

# Ashutosh Tiwari

812-606-5974 | [ashutiwa@iu.edu](mailto:ashutiwa@iu.edu) | [Linkedin](#) | [Portfolio](#) | [GitHub](#)

## EDUCATION

### Indiana University

*Master of Science in Data Science (Computational Track)*

Bloomington, IN

*Aug. 2021 – Present*

### National Institute of Technology

*Bachelor of Science in Computer Science*

Patna, India

*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 1 (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 1

Sep. 2016 – Sep. 2017

*Groupon*

*BACKEND*

- Cyclops is the interface to Customer Reps which they use to resolve customer queries and requests which is live in all countries in which Groupon operates. It talks to almost every microservice in Groupon and also exposes APIs to other internal services.

### Software Engineer

Sep. 2015 – Aug. 2016

*NetSpeed Systems*

*GRAPH ALGORITHMS, NETWORK ON CHIP*

- Implemented many modules single-handedly (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 images on basis of their ingredient embeddings

**Continuous Dominant Set Repair** | *C++, Graph Algorithms, Guha and Khuller's Algo., Greedy* [Code/Report](#)

- Repairs a broken link in Continuous Dominant Set in  $O(\Delta^2)$ , where  $\Delta$  being the max cardinality of graph

**Geekon 2017** | *Python, Tensorflow, SVD, Collaborative Filtering* [Code/Report](#)

- Recommendation of deals based on user history

## TECHNICAL SKILLS

**Languages:** Python, Scala, Java, C++, SQL

**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 B 555), Deep Learning Systems (ENGR E 533)**