Tushar Chandra

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EXPERIENCE

Senior Data Scientist
July 2020 – Present

Nielsen — *Chicago, IL*

- Researched and shipped Bayesian inference model for measuring audiences for 100s of ad campaigns on 3 platforms, using PySpark, NumPyro, and Airflow (US patent pending).
- Designed and developed evaluation framework for benchmarking PyTorch TV viewing model against 100s of GBs of historical data.
- Productionalized ad-hoc ETL runs and ML model training to be more reproducible, increasing iteration speed.
- Created matplotlib visualizations to evaluate and build trust in machine learning models.

Data Scientist
July 2018 – July 2020

Nielsen — *Chicago, IL*

- Rebuilt flagship TV ratings model with machine learning in PySpark to train 10x faster and admit 4x fewer false positives (US patent pending).
- Developed alpha version of internal Python framework for unifying workflows for 1000+ data scientists.
- Automated documentation build of internal framework using Sphinx and AWS.
- Presented tech talks on Spark and Bayesian modeling to audiences of 200+ data scientists, software engineers, and business leaders

Software Engineering Intern
Summer 2017

Qualtrics — *Seattle, WA*

- Added pagination, custom data types, & UI enhancements to "action planning" module on Employee Experience platform (AngularJS, Java)
- Redesigned handling of page filters for action planning dashboards by refactoring shared and product-specific code
- Increased test coverage for product by 10% and wrote test files from scratch for untested services

Teaching Assistant
March 2016 - June 2018

Northwestern University — *Evanston, IL*

- Mentored students in intro programming, intermediate Python, discrete mathematics, and data structures courses
- Assisted with curriculum and exam design; led small-group tutorial sections; taught students individually

EDUCATION

Northwestern University
Evanston, IL

M.S. in Computer Science (GPA 4.0) — *June 2018*

Northwestern University
Evanston, IL

B.S. in Computer Science, Integrated Science Program (GPA 3.9) — *June 2018*

PROJECTS

Mystery Dungeon Rescues | *Python, JavaScript, Tailwind CSS* tusharc.dev/rescue

- Built a responsive, mobile-friendly web tool for saving players in the video game Pokemon Mystery Dungeon: Rescue Team DX, using Pyodide to run custom Python code in-browser alongside JavaScript

Tech for Campaigns | *Python, PostgreSQL, scikit-learn* techforcampaigns.org

- Improved data ingestion pipeline for election prediction model, resulting in 200+ unit tests passing, fewer build failures, and 10% faster CI runs
- Built tools to download & process messy, disparate electoral data from 4 state election boards

Website and Blog | *Hugo, Tailwind CSS* tusharc.dev

- Personal website with 80+ summaries of CS research papers, 200+ posts, and 100+ weekly visitors

TECHNICAL SKILLS

Languages: Python, SQL, PySpark, JavaScript, HTML/CSS
Technologies: Git, Unix, Flask, unit testing & TDD, machine learning, Bayesian modeling, AWS
Libraries: numpy, pandas, matplotlib, scikit-learn, PyTorch, Pyro