TUSHAR CHANDRA

DATA SCIENTIST

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EMPLOYMENT

Data Scientist · Nielsen — July 2018 to Current

- Created model for TV viewing in Pyspark which trains 10x faster, admits 4x fewer false positives, and is more defensible to clients than current production model (US patent pending)
- Reduced cycle time for data cleaning process from 1 month to 10 minutes by creating an interactive web app for internal and third-party stakeholders (Python, Flask, Pandas, HTML, CSS)
- Rebuilt legacy SAS data pipeline in Python by converting 79 sequential scripts into 15 flexible modules, reducing duplication, increasing code clarity, and sharing reusable components among other data scientists
- Revamped internal documentation by configuring Sphinx, deploying on AWS, and automating build process
- Presented Spark tech talk to 350 data scientists, software engineers, and business leaders across Nielsen

Software Engineering Intern · Qualtrics — June 2017 to Aug. 2017

- Added new features (pagination, custom data types, UI enhancements) to "action planning" module on Employee Experience platform, better allowing managers to effect change in their team
- 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 · Northwestern University — Mar. 2016 to June 2018

- 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

Lead Helpdesk Analyst · Northwestern University — Sept. 2014 to June 2018

- Developed Chrome extension (github.com/tuchandra/footprints-selector) to automate often-forgotten parts of help desk tickets, deploying to 60 student staff members and reducing incomplete tickets by over 90%
- Fostered individual growth by mentoring, managing, training, and reviewing 5 student consultants semiannually

EDUCATION

Northwestern University

M.S. Computer Science - GPA 4.0 - 2018

B.S. Computer Science & Integrated Science - GPA 3.96 - 2018

Student in the Integrated Science Program, a selective, research-oriented program in science and mathematics; member of Tau Beta Pi Engineering Honor Society; affiliations include Phi Mu Alpha and marching band.

SKILLS

PYTHON: fluent in core language features, along with numpy, pandas, scikit-learn, matplotlib / seaborn, pyspark, type hints / mypy
TECHNOLOGIES: Git, Unix, unit testing and TDD, machine learning, cloud computing, data visualization in Python and d3.js, Bayesian inference via PyMC3
OTHER LANGUAGES: SQL (advanced), Spark (advanced), JavaScript (basic), R (basic)

PROJECTS

Red Tweet, Blue Tweet (Python, R, MongoDB)

- Investigated political polarization over time on Twitter by replicating methods of Barberá et al. using Python and R
- Collected 53 million Tweets over 3 weeks with Twitter Streaming API, storing in MongoDB database
- Used correspondence analysis to estimate political ideology of 3 million users and analyze online polarization

Sleep Analysis (Python)

- Leveraged Fitbit API to obtain two years of minute-by-minute sleep data
- Analyzed and visualized data in Python to draw conclusions and gain insights about personal sleep patterns