

SOHAM BHAGWAT

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EDUCATION

Indiana University, Bloomington, IN Expected May 2024
MS in Data Science

Savitribai Phule Pune University, Pune, India May 2022
Bachelor of Engineering, Computer Engineering (Honors in AI and ML)

SKILLS

Programming Languages	Python, R, Java, C++
Databases	MySQL, PostgreSQL, Firebase, MongoDB, MS-SQL
Web Application	HTML, JSP, Java Swing, CSS, JavaScript
Tools	Git, Jenkins, Ansible, PuTTY, Tableau
Libraries	Pandas, NumPy, Matplotlib, OpenCV, Keras, PyTorch, Scikit-learn, ggplot, R-shiny

EXPERIENCE

Indiana University-Bloomington Present
Graduate Teaching Assistant: **Statistical Analysis for Effective Decision-Making** *Bloomington, IN*

- Assisting Prof. Barry Rubin in providing weekly instruction to graduate students about advanced statistical and data analytic techniques, including, but not limited to, regression analysis, correlation and analysis of variance.
- Trained 40+ students in basic to intermediate R programming and data visualization with ggplot2.
- Directed 16 weekly lab sessions and demonstrated hands-on application of concepts like regression modeling and Hypothesis testing using R.
- Conducted office hours to review statistical concepts and managed grading for all assignments and exams, as well as course communication.

PTC Inc. Aug 2021 - June 2022
R & D Intern (DevOps) *Pune, India*

- Automated manual steps/configurations using Python and shell scripting saving approximately **2 hours** of daily manual work, thereby streamlining the workflows. Also monitored and maintained critical CI/ CD pipelines related to the flagship product - Windchill.
- Deployed Windchill Servers for executing more than **100k** Automated Tests and optimised the production pipeline which led to the reduction of execution time from 26+ hours to **17** hours.
- Automated the end-to-end deployment of Oracle DB on Azure VM for daily test runs of approx **40k** internal regression tests on windchill, thereby saving **1 hour** of daily manual deployment of test server.

PROJECTS

Comparative Study on Recommendation System using GNNs: Compared the performance of various Recommender System using models like traditional Collaborative Filtering, Neural Graph Collaborative Filtering and Graph Sage on Amazon Products Dataset with more than **500k** data points. The hit-rate for NGCF and GraphSage was **0.817** and **0.846** respectively, comparable to current state-of-the-art-models.

OCR for Handwritten Text: Developed an OCR application for detection of handwritten text using algorithms like CTC, CNN, Bi-RNN deployed as a stand-alone desktop application

United States Tornado Analysis: Narrated a data story and performed extensive EDA and answered research questions pertaining to the occurrence of tornadoes from 1950 through 2021 in the US.

SPPU Papers: A comprehensive Android application which acts as a repository for preceding years' engineering papers of SPPU using Android, Java, Firebase. App available on Google Play Store - India with 2k+ downloads and 4.8 average rating. ([Checkout here](#))