# Bhairavi Muralidharan

#### DATA SCIENCE

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## SKILLS\_\_\_\_\_

**Programming** Python (scikit-learn, PyTorch), SQL, R, Java, C, JavaScript, HTML

**Tools** Weights and Biases, Dataiku, MS Excel, Git, Jira, Confluence

#### EDUCATION \_\_

#### **University Of Pennsylvania**

Philadelphia, PA

Master of Science in Engineering: Data Science; GPA: 3.90/4.00

Aug 2021 - May 2023

- Research Assistant: Computational Social Science Lab Working on the Penn Media Accountability Project, an interdisciplinary, nonpartisan research project dedicated to enhancing media transparency and accountability at the scale of the entire information ecosystem
- Graduate Teaching Assistant: CIT 591 Introduction to Software Development, CIT 582 Blockchain and Cryptography

Christ University

Bangalore, IND

Bachelor of Science: Computer Science, Mathematics, Statistics; GPA: 3.85/4.00

Jun 2017 - May 2020

• Selected to be a part of the Deanery Level Student Council - Christ University - Science

#### WORK EXPERIENCE \_\_\_\_\_

iQGateway Bangalore, IND

**Associate Data Scientist** 

Jul 2020 - Aug 2021

- Conducted research on building Automated Machine Learning approaches that include pipeline automation and patented model evaluation based on multiple metrics which attributed to building a modular feature transformation library in Python
- · Optimised MLOps workflow to enable easy transition from model development to inference for production environments
- Implemented novel data driven solutions based on data related to Education services Report Generation and Data visualization with Highcharts and JavaScript

Talerang Bangalore, IND

**Web Design Intern** 

Dec 2018 - Mar 2019

- Improved and redesigned the Online Portal by restructuring content while understanding User Experience principles which improved content engagement by 7%
- Customized the front-end using HTML, CSS and PHP
- Added responsibility: City Chapter President Bangalore, overseeing all Chapter Presidents that come under Bangalore city: Hosted multiple public awareness events where I honed my leadership skills and connected with people from different backgrounds

### **Hitachi Payment Services**

Mumbai, IND

**Data Analyst Intern** 

Apr 2018 - May 2018

- · Collaborated with the Business Finance team to perform data surgeries, this led to the automation of monthly and yearly analysis
- Structured and revamped the analysis using MS Excel
- · Analysed data on the transactions of ATMs spread across India, and came up with a profit/loss tabulation

#### PROJECTS \_\_\_\_\_

**Lexical Normalization** → GitHub

Natural Language Processing, Deep Learning

- Lexical Normalization system, which enables efficient information extraction by converting non-standard text to a ready-to-use standard register
- Created a hybrid model that used a Maximum Frequency Replacement model for In-Vocab words and a Char RNN model for Out-Of-Vocab words while experimenting with different methods of augmenting data, this resulted in an increase in the accuracy by 3%

#### Session-based Sequential Skip Prediction: Spotify

→GitHub

Machine Learning, Recommendation System: Supervised Classification Problem

- · Predicting whether users will skip tracks, given their immediately preceding interactions in their listening session
- Preprocessed the data using PCA, compared different approaches like Random Forest Classification with boosting (XGBoost), and extended sequential approaches (pretrained Char RNN) to examine the effect of the sequence of tracks on the user's behaviour