

# Yasu Paudel

571-546-9535 | [yiyasu@gmail.com](mailto:yiyasu@gmail.com) | [linkedin.com/in/yiyasu](https://www.linkedin.com/in/yiyasu) | [yiyasu.github.io](https://yiyasu.github.io)

## EDUCATION

### University of Pennsylvania

Philadelphia, PA

*Master of Science in Engineering, Data Science*

*School of Engineering and Applied Science: Machine Learning, Database and Information Systems, Statistics for Data Science, Big Data Analytics, Deep Learning, Artificial Intelligence, Ethical Algorithm Design*

*The Wharton School: Forecasting Methods for Management, Data and Analysis for Marketing Decisions, Data Mining*

### Christ University

Bangalore, IN

*Bachelor of Science, Computer Science, Mathematics, Statistics*

## PROFESSIONAL EXPERIENCE

### Data Scientist

October 2023 – Present

*Quartet Engineers*

*Houston, TX*

- Wrote high-quality SQL code to retrieve and analyze large disparate data sets from SpectraQUEST and Python script to process data for modelling; presented findings directly to stakeholders
- Designed data entry templates and re-architecture of ArcGIS to enhance overall efficiency

### Research Assistant

September 2022 – January 2023

*Mack Institute for Innovation Management*

*Philadelphia, PA*

- Utilized web scraping techniques with LibCurl, Scrapy, and BeautifulSoup to extract large data sets and network-based data from a complex domain, conducting experiments to uncover over 400 subdomains
- Designed and executed data visualization techniques using networkx, bokeh, and pyviz libraries to create graphical representations of links for an ecosystem and improved understanding of complex systems by 60%

### Research Fellow

May 2022 – August 2022

*Environmental, Social and Governance (ESG) Lab*

*Philadelphia, PA*

- Developed data frames to generate actionable insights from large disparate data with 80% accuracy
- Designed parsers to efficiently write scraped data to .csv files, resulting in a 75% increase in research efficiency

### Data Scientist

December 2020 – July 2021

*Machhapuchchhre Bank Limited (MBL)*

*Kathmandu, NP*

- Collaborated with BI team of 4 to optimize in-application SQL queries; resulting in a 52% faster database loading speed
- Applied analytical skills to build, validate, and deploy a machine learning-based fraud detection model, resulting in a 65% reduction in manual review time
- Effectively communicated actionable results influencing teams through the presentation of data-based recommendations from insights regarding current fraud trends with recommendations to avert future incidents

### Data Analyst

July 2020 – November 2020

*Fonepay (F1Soft International Pvt. Ltd.)*

*Kathmandu, NP*

- Worked closely with cross-functional teams to understand client requirements; optimizing Tableau workbooks and data sources for performance and scalability
- Logged QR transactions for 18M customers and designed a solution to identify novel marketing strategies by performing trend identification for improving advertiser performance, leading to a 20% boost in strategic decision-making
- Implemented Tableau dashboard to improve system efficiency and drive company-wide understanding, saving 10 hours/week on manual reporting

## PROJECTS

### Face Mask Detection | *Python (torch, torchvision, sklearn, matplotlib, numpy)*

May 2022

- Integrated a precision-based CNN model with 2 colleagues, recognizing masked targets with an accuracy of 97%
- Implemented trained ResNet50 and MobileNetV2 as advanced models with transfer learning

### Boston Airbnb and Weather | *MySQL, JavaScript, HTML, CSS*

December 2021

- Worked collaboratively with 3 others to develop an insightful full-stack web application, facilitating faster access to Airbnb-weather analysis by 40%

## TECHNICAL SKILLS

**Languages:** Python (seaborn, scikit-learn, pandas, numpy, matplotlib, scipy, PyTorch), SQL, MySQL, Oracle, R, SPSS, SAS, Hadoop, Apache Hive, Hadoop, Tableau, Apache Spark, MATLAB, AWS, NLP, RDBMS, HTML, CSS, JavaScript, Excel

**Data Science and Miscellaneous Technologies:** A/B Testing, Statistical Analysis, ETL Framework, Predictive Models, Statistical Inference, Data Optimization, Quantitative Analysis, Big Data Analytics, Deep Learning, Reinforcement Learning, Natural Language Processing, Classical Machine Learning, Time Series, Automation, Relational Databases

## LEADERSHIP EXPERIENCE / ORGANIZATION

**Python Instructor:** Fife-Penn CS Academy coding club instructor for 4th - 8th graders at Penn Alexander School

**Graduate Teaching Assistant:** Master of Science in Social Policy: Practical Machine Learning Methods (MSSP 6080)

**Graduate and Professional Student Assembly (GAPSA):** Council Member

**Society of Women Engineers:** Collegiate member