# Shariq Lalani

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### **EDUCATION**

University of Pennsylvania | Masters, Computer Science (MCIT) | GPA: 3.5/4.0

Aug 2024

Big Data Analytics, Networked Systems, Data Structures, Algorithms, Discrete Math, Operating Systems

University of Michigan - Ann Arbor | Bachelors, Mechanical Engineering

Dec 2017

### **SKILLS & CERTIFICATIONS**

**Programming:** Python [Pandas, Matplotlib, Scikit-learn, Pytorch, Seaborn, Pyspark, Langchain], Java, C/C++, SQL/MySQL,

HTML, CSS, JavaScript, React, Flask

DevOps: Git/Github, Linux, Docker, DBeaver, Bash, AWS ECR/EC2

Certifications: AWS Certified Cloud Practitioner (2023)

#### RELEVANT EXPERIENCE

# **HrHouz - Software Engineer Intern** | Remote

Mar 2024 – Present

• Leading the development of Flask-based backend APIs and server-side programming in a microservice framework, leveraging LLMs (large language models) for advanced analytics and fraud detection for HR reference checks

## Jubilee Monuments Corp. - Data Infrastructure Developer | Remote | Volunteer

Nov 2023 – Present

- Created camp application trackers to categorize participants to improve diversity and inclusion
- Migrated data from external database to internal RDS database using MySQL for further analysis and created live feed to google sheets for stakeholder viewing

# University of Pennsylvania - Graduate Teaching Assistant | Remote

Jul 2023 - Dec 2023

Mentored 50 students in software development for Python and Java during weekly office hours to improve grades

# Aisin Technical Center of America - Project Engineer II | Northville, MI

Oct 2018 - Nov 2022

- Led electronic and sunroof product validation program teams for design, production, and warranty issues
- Created test plans, analyzed performance data and provided technical reports accessing outcomes
- Reviewed industry specifications, coordinated with third-party facilities, and generated timeline for customers

### **PROJECTS**

PennSearch | Team of 4 | C++

Jan 2024 - Present

- Developed a peer-to-peer search engine utilizing a Chord Distributed Hash Table (DHT) overlay network
- Implemented DV and LS routing protocols below the overlay network to ensure correct behavior and stability
- Designed and implemented PennSearch to enable keyword-based search queries, ensuring accurate document retrieval through intersection of inverted lists

### WHO Mortality Data Pipeline | Team of 3 | Python

Nov - Dec 2023

- Created an end to end data pipeline to understand factors which influence mortality rates around the world
- Utilized ETL processes to prepare data for analysis and created visualizations of mortality trends and causes of death
- Performed regression analysis using sklearn to assess the importance of features in predicting future outcomes

### Philly Covid Data Analyzer | Team of 2 | Java

Apr 2023

- Built a Java application that processes Covid datasets (500k+ entries) to analyze trends in hospitalizations, property value, and display the results using a custom UI
- Wrote a finite state machine Lexer to read data records for analysis and utilized singleton design pattern for logging

### **ADDITIONAL EXPERIENCE**

University of Pennsylvania - Beta Tester (DATS 5980) | Remote University of Michigan Neurobionics Lab - Research Assistant | Ann Arbor, MI Feb 2024 – Present Oct 2018 - Nov 2019