Pegah Zargarian

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EDUCATION

Master of Science in Data Science, GPA: 3.87 **Expected**: December 2025, Northeastern University, San Jose, CA

TECHNICAL SKILLS

- **Programming Languages:** Python, SQL, R, Java, C++, C, HTML, CSS, JavaScript
- **Libraries/Frameworks:** Pandas, NumPy, Matplotlib, Scikit-learn, Selenium
- **Relevant Courses:** Database Management, Cloud Computing, Algorithms, Linear Algebra, Object-Oriented Programming (Java), Supervised and Unsupervised Machine Learning

EXPEREIANCES

Graduate Teaching Assistant, Northeastern University |*September 2024 – Present*

- Lead office hours and assist students in learning data structures, algorithms, and machine learning concepts, enhancing communication skills and leadership.
- Designed and delivered lessons on web development topics, including basic HTML/CSS and JavaScript, to encourage students' understanding of web technologies.

Speaker, Tech Intersections 2025, Northeastern University | Oakland, CA | January 2025
Presenting "Leveraging AI for Women of Color: Practical Tools to Transform Businesses and Careers."

Member, AI & Data Club, Northeastern University | April 2024 – Present

- Actively collaborate with fellow students to explore AI and machine learning projects and learn from industry professionals on AI and web development technologies.

PROJECTS

Customer Churn Prediction Model | December 2024

- Built a robust churn prediction model using XGBoost, achieving an F1-score of 0.91 and recall of 0.92, optimizing customer retention strategies for e-commerce and telecom sectors.
- Implemented SMOTE to address class imbalance and utilized SHAP values for explainable AI insights, demonstrating the model's transparency in decision-making.

Pharma Sales Database Development & Mining | September – December 2023

- Designed and implemented an ETL pipeline using R, processing large datasets, and linking SQLite and MySQL databases for enhanced data management.
- Improved data retrieval by 25% using efficient SQL queries and visualized the results with ggplot2, enabling better decision-making in marketing and sales.

Customer Database Management System | December 2022

- Led the creation of a C++-based database management system, utilizing Binary Search Trees and Hash Tables to improve data retrieval efficiency by 40%.
- Optimized data handling to support business operations, focusing on scalable solutions for customer data management.

CERTIFICATE

Amazon Web Services (AWS) Cloud Architecture Solution Badge - Amazon training, *July 2024*