Huidi Wang

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EDUCATION

Northeastern University – Boston Campus, Boston, MA — Jan 2023 – Present
MS in Computer Science Candidate, GPA: 4.0 / 4.0 — *Expected Graduation: Jan 2025*
Relevant Coursework: Algorithms, Object-Oriented Design, Discrete Structures, Databases

University of California – Irvine, Irvine, CA — Sep 2018 – June 2022
BS in Mathematics
Relevant Coursework: Linear Algebra, Probability, Optimization, Calculus, Machine Learning, A/B Testing

TECHNICAL KNOWLEDGE

Languages: Python, Java, Javascript, C, R,
Tools & Frameworks: Git, Swing, Scikit-learn, XGBoost **Databases:** MySQL, SQL Server

PROJECTS

2048 Game — April 2023
Northeastern University
- Designed and implemented an interactive game leveraging Python's turtle library, emphasizing UI aesthetics and user experience.
- Incorporated keyboard arrow key controls to facilitate seamless gameplay, enhancing player engagement.
- Implemented a dynamic scoring system with real-time updates and robust error-handling, allowing users to restart the game and enhancing overall usability.
- Enhanced game aesthetics by introducing cell merge highlights and allowed board size customization for added gameplay variety.

Image Manipulation — August 2023
Northeastern University
- Developed an application capable of handling text-based and GUI interactions to apply image processing effects on various file formats (jpg, png, bmp, etc).
- Ensured the GUI displays the active image, supporting scrolling functionality for larger images. Incorporated real-time updates to visualize image manipulations instantaneously.
- Exposed primary features including image flipping, component visualization, grayscale conversion, blurring, sharpening, and sepia toning.
- Facilitated user-friendly interactions, allowing users to specify image paths without hardcoded constraints, and introduced error displays via visible text.

Maven Fuzzy Factory Business Analysis — June 2022
University of California, Irvine
- Explored page-level website data to compare traffic & conversion rates using custom SQL queries, created 20+ key metrics & stored the processed data in a MySQL database.
- Analyzed conversion funnels using Tableau & proposed data-driven recommendations to optimize customer purchase experience & gain sales lift of ~5%.
- Summarized & visualized paid vs. free traffic by device type, and performed time series analysis to estimate seasonality & trend components in the data with complex SQL queries with joins, CTEs & sub-queries
- Discovered the most valuable customers & determined their source channels, usage patterns and repeat session frequencies, showcased the insights in an Excel dashboard.

WORK EXPERIENCE

Working Memory and Plastiicity Lab, Irvine, California — Sep 2021 – Dec 2022
Machine Learning Research Assistant
- Cleansed & explored working memory survey data from 50k+ participants using Python Pandas & Seaborn.
- Performed feature engineering & data normalization, imputed missing data & treated outliers using NumPy & Pandas.
- Built Linear Regression, Support Vector Machine, and Decision Tree algorithms from Scikit-learn in Python to predict working memory levels in participants based on 20+ features.
- Analyzed Model performance based on F1 Score, ROC Curve & Loss Function, achieved highest F1-score of 0.91 with SVM.