Mahtab Masoudi Nezhad

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Education

West Virginia University, *Morgantown, WV*
Master of Science in Computer Science
Master of Science in Agriculture, Natural Resources, and Design

Amirkabir University of Technology, *Tehran, Iran*
Bachelor of Science in Textiles Engineering

Academic Projects

"Database management for entrepreneurship center at WVU"   Summer 2024
- Developed a SharePoint site integrated with Microsoft Office apps to streamline the collection and analysis of client information, enhancing data management and accessibility.

"Classification and segmentation of apparel using Convolutional Neural Networks"   Spring 2024
- Generated a new dataset using Generative Adversarial Network. Employing an apparel sewing pattern dataset along with corresponding 3D images using SciKit, TensorFlow, Keras libraries.
- Utilizing ResNet50 to fine-tune the model, enhancing its performance and accuracy.

"Regional Predictions of COVID-19 Rates Based on Twitter Data"   Fall 2023
Coursework: Big Data Engineering
- Cleaning and preprocessing a diverse tweet dataset using Numpy, Pandas, Matplotlib libraries
- Experimenting with various combinations of keywords within tweets to optimize prediction accuracy for COVID-19 cases in different states.

"Multi-sensory evaluation of textile haptics"   Spring 2023
Coursework: Statistical Methods
- Collecting, arranging, and entering data into consumer neuroscience software for unpacking human behavior. Used biosensors and eye tracking devices for this study.

"Biodegradation of 3D-printed composites"   Fall 2022
- Performing experiment on biodegradation of different blends of cotton and PLA.
- Researching and gathering information on standards required for the experiment.

"In-situ synthesis of zinc oxide nanoparticles on cotton fabrics"   Fall-Spring 2018
- Evaluating mechanical and chemical properties of each blend to optimize the functionality.
- Researching and gathering information on standards required for the experiment.

Work Experience

Machine Learning Internship   Summer 2024
WVCTSI, Morgantown, WV
- Conduct research and analyze data sets using machine learning techniques in SparkSQL and Python to identify patterns, trends, and insights for public health and clinical studies.

Graduate Assistant   August 2022-2024
WVU, Morgantown, WV
- Managing a team of 10 student workers on SharePoint and Starrez systems.
- Grading assignments and supporting faculty with research in consumer neuroscience.

Quality Control Inspector   September 2020-2022
LC Waikiki, Tehran, Iran
- Trained newly hired employees by explaining company procedures, job duties and performance expectations.
- Wrote detailed reports outlining performance, quality, and defect rates.

Certification and Professional Affiliation

Human Subject Research, CITI Training for Biomedical Research Investigators	2025
XRD SEM Cleanroom Training	2024
Machine Learning Certification	2023
Hazard Communication, Laboratory Safety, and Hazardous Waste	2022

Skills

Programming Languages and Frameworks: Python, SQL, React, JavaScript, HTML
Software Knowledge: Clo3d, Lectra/Gerber, Gemini, Catia, Solidworks, Autodesk Fusion, Figma, PLM SAP, GIS
Abilities: Data Analysis using JMP, Minitab, R – Perform textile standard tests
Languages: English and Persian
Portfolio: https://Mahtabmasoudi.github.io/portfolio   **GitHub**: https://github.com/Mahtabmasoudi