Yunmei Zheng

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Education

University at Buffalo, The State University of New York Expected Graduation: May 2023
Bachelor of Science, Engineering Science (Industrial Engineering)

Professional Experience

Electrical Engineering Intern
Syska Hennessy Group – Manhattan, NY *June– August 2022*

- Coordinated and collaborated with engineers from different fields and companies in similar trade
- Assisted engineers with a wide variety of projects using AutoCAD and Revit
- Performed load calculations for an airport and created single line drawing and schematics
- Data entry for lights and wires into Excel and AutoCAD

General Contracting Intern
CONDE LLC. – Manhattan , NY *May – August 2018*

- Scheduled and coordinated groups of small meetings and appointments for supervisors with contractors
- Greeted visitors and helped them find the appropriate person or schedule an appointment
- Maintained utmost discretion when dealing with sensitive topics
- Assembled research for future projects, designed and improved PowerPoints for upcoming projects

Skills

- Languages: Arduino IDE (C,C++), MATLAB, Python, R, SQL
- CAD: AutoCAD, Civil3D, Fusion360, SolidWorks, Revit

Projects

Quantum Computing, Concord Consortium November 2022 – Present

- Creating a prototype of 2 set of cards to aid children in better comprehending quantum mechanics. The standard cards will act as a conceptual agent for the engagement of protons and its behavior will be shown through computer simulation.

Machine learning for River Forecasting, US Army Corps of Engineers October 2022 – Present

- Creating a model that can be used to accurately forecast flow at various locations along the Genesee River, given inputs of observed river, precipitation gage data and forecast precipitation.

Demographics and air quality in NYC August – December 2022

- Cleaned and proceeded two datasets to determine the area that has the highest concentration of pollutants as well as the demographics within that area by using different models.

Experimented with Supervised Machine Learning and Motion Sensors (Sport Analytics) February – April 2022

- Assessed model accuracy in classifying handwritten digits from the MNIST database by tuning hyperparameters C and gamma to optimize the performance of the SVM classifier.
- Conducted an experiment using Vicon systems to capture data on the projected route path of the object and the user's body joint position when throwing. Analyzed the data to establish the individual performance accuracy by determining optimal throwing motion and velocity.

Conducted Experiments with FSR sensor and Prosthetic Hand Control September - November 2021

- Optimized the operation of a production system through a black box experiment using FSR and Potentiometer sensors. Excel regression model was used to assess the generated data, and representative system models were developed to identify the best configurations to optimize the result.
- Assessed the suitability of an EMG sensors as a potential sensor for controlling a prosthetic device. Acquire muscle actuation data for different upper limb movements and muscles. Mapped muscle actuation data to specific prosthetic movement with the help of a servomotor as a proxy to comprehend sensitivity and control.