Theodore Avery

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Github
LinkedIn

Education

Colorado State University
August 2019 - May 2023

B.S. in Computer Science
Minor in Chemistry
GPA: 3.6
Western Undergraduate Exchange Scholarship

Projects

Multilayer Neural Network for Nonlinear-Regression

- Python program that implemented a neural network that can easily manipulate parameters and find efficient models.

Classification of Hand Drawn Images Using a Neural Network

- Utilized a NumPy neural network class, and applied multiple tests to optimize a model for the MNIST Dataset.

Convolutional Neural Networks in PyTorch

- Created 1-dimensional and 2-dimensional neural network architectures with PyTorch for the MNIST data.

Full Stack Software Engineering Course

- Introduced to a semester-long team full stack project that used agile software development to implement new app features.

File Censorship

- Built a C++ program that censors a given list of words found in a file.
- Utilized object-oriented programming with classes to organize the task.

Floating Point Addition

- C program that implements mathematical functions only utilizing bit manipulation on floating point 16-bit integers.

Programming Skills

Advanced - Python, Numpy, PyTorch, C, C++, Java, Python, Agile Development

Familiar - React, SQL, JavaScript, HTML, CSS

Courses - Data Structures, Algorithms, Software Development, Software Engineering, Systems Security, Machine Learning, Deep Learning

Experience

<u>Organic Chemistry II Tutor</u> - Colorado State University
January 2023 - May 2023

Overview:

- ○ Helped undergraduate organic chemistry II students by leading workshops to help them understand course content and problem sets.

- ○ Hosted office hours for students to come for personalized lessons and specific questions to help them succeed.

<u>Grand Canyon River Guide</u> - Hatch River Expeditions
June 2015 - August 2022

Overview:

- ○ Led and facilitated week-long excursions for groups of up to 30 people, navigating the Colorado River in the remote and stunning Grand Canyon.
- ○ Took on diverse responsibilities, including driving 30-foot motorboats, delivering interpretive presentations, providing orientations, cooking meals, guiding hikes, and offering engaging entertainment throughout the journey.

Key Contributions:

- ○ Demonstrated high-stress leadership by successfully managing and guiding new groups of people on week-long expeditions in a challenging and dangerous environment.
- ○ Safeguarded the well-being of passengers throughout all 51 trips by effectively implementing safety protocols and providing thorough briefings on potential hazards.
- ○ Adapted quickly to diverse situations, ensuring each trip was still enjoyable and memorable for passengers despite unexpected challenges.
- ○ Acted as a calm and composed leader during high-pressure scenarios, such as navigating treacherous rapids and adverse weather conditions, ensuring the safety and comfort of everyone on board.
- ○ Contributed to creating unforgettable experiences by leveraging my expertise and knowledge of the Grand Canyon, providing insightful information, and facilitating engaging activities that left a lasting impression on passengers.
- ○ Led a team of individuals who were out of their comfort zones, fostering a collaborative and supportive environment where everyone worked together to ensure their safety and the success of the trip.
- ○ Proactively identified opportunities for improvement through personal observations and solicited customer feedback, leveraging these insights to drive continuous enhancements for future trips.
- ○ Acted upon feedback and suggestions from customers to implement meaningful changes, resulting in improved trip experiences and higher customer satisfaction levels.