

Nicholas Ward

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[nickward · GitHub](#) | [LinkedIn Profile](#)

EDUCATION

University of Nevada, Reno (GPA: 3.52 — DEGREE COMPLETED)

Bachelor of Science, Computer Science and Engineering

DEC 2022

Minor: Mathematics

Relevant Courses: Data Structures/Algorithms, Machine Learning, Deep Learning, Data Mining, Big Data, Regression/Linear Models, Analysis of Algorithms.

EXPERIENCE

Data scientist/Software Engineer - NXTechnologies (START UP)

JAN 2023 - CURR

- Developed and optimized real-time digital signal processing code, showcasing expertise in algorithm development and scalability.
- Enhanced system performance on microprocessors by optimizing legacy code, demonstrating skills in resource management and software efficiency.
- Devised an innovative rule-based system for intelligent audio processing, emphasizing creativity and systems design acumen.
- Thrived in a fast-paced startup environment, refining collaboration, communication, and adaptability skills.
- Contributed to business planning and product development discussions, displaying strategic thinking and a results-driven mindset.

Data Science Intern - Panasonic (Tesla GigaFactory)

MAY 2022 - AUG 2022

- Improved model performance through cleaning an extremely dirty dataset
- Created a model that forecasts machine downtimes using operator text input and natural language processing techniques
- Developed a proof-of-concept recommendation system to provide operators suggestions for minimizing machine downtimes

Research Assistant - UNR Advanced Robotics and Automation Laboratory

APR 2021 - MAY 2022

- Developed a GitHub repository featuring a deep learning approach for pick and place tasks with an Aubo Robotic Arm, including comprehensive documentation and code samples
- Improved the efficiency and smoothness of the pick and place task in the lab, by optimizing the connection process between the object detection, pose recognition, and arm movement
- Developed OpenAI deep reinforcement learning environments and optimized hyperparameters using genetic algorithm (see publications for more details)

PERSONAL PROJECTS

Automated Day Trading Bots

- Built profitable automated trading bots in Python to live trade different indices and currency pairs
- Automated the backtesting process for various trading strategies with full analysis of profits, losses, Sharpe ratio, and expected monthly returns

PUBLICATIONS

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- Sehgal, A., Ward, N., La, H., Papachristos, C., & Louis, S.. (2022). GA-DRL: Genetic Algorithm-Based Function Optimizer in Deep Reinforcement Learning for Robotic Manipulation Tasks.

TECHNICAL SKILLS

Programming Language(s) — Python, SQL, C/C++, SwiftUI

Data Visualization — Seaborn, Plotly, Matplotlib

Machine Learning Frameworks — Scikit-learn, Tensorflow

Tools — Jupyter Notebook, Git, Google Collab, LaTeX