NICHOLAS GARDNER

EXPERIENCE

MLOps/Infrastructure Intern

National Grid

🛗 June 2023 – August 2023

2023 🛛 🕈 Waltham, MA

𝗞 www.nickgardner.us

- Identified inefficiencies in current project practices and developed functionality to improve business performance through automation. Improvements included interfacing with various data sources such as Azure Blob Storage, PostgreSQL, and Snowflake.
- Helped to design and enforce standard development guidelines designed to ensure consistency across development, testing, and production environments.
- Evaluated Azure Machine Learning as an analytics platform and created tools to automate local developer interaction.
- Analyzed product order history to identify trends and provide tailored forecasting tools. Met with business stakeholders and iterated on design based on their insights.

Data Scientist Co-op

Golisano Institute for Sustainability

🛗 August 2020 – May 2023

Q Rochester, NY

- Implemented a complete system for LED health assessment from images of printed circuit boards, using OpenCV and PyTorch. This system was presented at the 2023 REMADE conference in the paper: "Image-based Methods for Inspection of Printed Circuit Boards".
- Interfaced with business and engineering teams at industry partner to understand business problems, present potential machine learning solutions, and iterate on designs based on stakeholder feedback.
- Created machine learning models for gear prognostic health monitoring using PyTorch, Keras/Tensorflow, and Sklearn. Mainly focused on anomaly detection.
- Designed and implemented a genetic algorithm to explore hyperparameter space for asymmetric autoencoders. This search algorithm, which was implemented in parallel to improve model training efficiency, more quickly converged to optimal values and allowed for analysis of broad model trends.

Computational Software Algorithm Development Co-op Spectral Sciences, Inc.

🛗 August 2021 – December 2021 🛛 💡 Burlington, MA

- Designed and implemented data classes for atmospheric datasets.
- Created custom interpolation to combine datasets for integration into SSI's Standardized Atmospheric Generator (SAG).

PROJECTS

Gym Tracker

Personal

🛗 October 2022 – Present

• Scrapes RIT's facilities website to display current and historical gym occupancy. Uses Google Cloud Run to automate scraping with BeautifulSoup4, Google Firebase to store data, and a Plotly Dash Flask app hosted on Heroku to render. Predicts future data using Facebook AI's Prophet.

O nickagardner in nickagardner

SUMMARY

6th year computer science BS/MS student at RIT, graduating in December 2023, looking for a full-time data science / machine learning position starting in spring 2024.

EDUCATION

M.S. Computer Science

Rochester Institute of Technology

🛗 January 2023 – December 2023 🛛 GPA: 3.83

B.S. Computer Science

Rochester Institute of Technology

SKILLS

Python Java C/C++ PyTorch		
Tensorflow Keras Scikit-Learn		
OpenCV	Matplotlib	NumPy
Pandas	SciPy SQL	Git Unix
Google Cloud AWS Azure		

COURSEWORK

- Neural Nets and Machine Learning
- Topics in Intelligent Systems: Intelligence for Autonomous Vehicles
- Introduction to Computer Vision
- Advanced Computer Vision
- Introduction to Artificial Intelligence
- Introduction to Machine Learning
- Biologically-Inspired Intelligent Systems
- Principles of Data Mining
- Analysis of Algorithms
- Foundations of Networks
- Principles of Data Management
- Advanced Database Implementation: NoSQL/NewSQL
- Concepts of Parallel and Distributed Systems
- Foundations of Cryptography