

Daniel Lacey

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EDUCATION

Clarkson University - 3.4 GPA Potsdam, NY Graduated May 2022

B.S. Mechanical Engineering, Minor Computer Science

EXPERIENCE

General Electric Vernova/Power - Monitoring & Diagnostics Engineer (Atlanta, GA) March 2023 - Present

- Learned, improved, and created troubleshooting process maps for Turbine and Generator technical.
- Addressed issues such as: Vibration, Thermodynamic, Combustion, Hydraulics, Valve Control, Sensor Issues, Etc...
- Monitored over 1000 power plants/sites around the world, performed on the fly problem solving and delivered technical solutions directly to the customer.
- Standardize and improved the high-speed data collection method for GE.

Intern - International Electronic Machines Corporation (Troy, NY) Summer 2020

- Responsible for the development and design of vibrational energy harvester prototypes.
- Performed literature review and conducted benchmark performance tests on multiple competitor models.
- Developed a magnetic field simulation program using MATLAB.

Undergraduate Research - Metal Organic Framework Nanostructures (Potsdam, NY) 2020 – 2022

- Explored multiple methods of making metallic nano-structures, we settling on reducing MOFs (Metal Organic Frameworks) for the research.
- Used LAMMPS (Large-scale Atomic Simulator) to simulate the structure and performed axial compression/tension stress tests, and indentation tests. Simulation results matched experimental data.

Intern - Vara Safety (Troy, NY) Summer 2019

- Learned how to design products for manufacturing: basic CNC operation, how to manage RFQs (request for quotation) from overseas vendors and execute POs.
- Designed multiple patented parts to reduce the complexity of manufacturing and the steps needed to assemble the product.
- Developed several concept designs for future products.

PROJECTS

SAT# Solver:

- Computer Logic solver that finds all Possible answers to large boolean expressions.
- Can be used to solve and optimize problems in Engineering, Computer Science, Logistics, and more

Artificial Learning:

Deep Reinforcement Learning

- Experience writing and modifying self-learning algorithms
 - ex: Deep Q Learning, Double Deep Q Learning, Policy Networks, and Actor Critic 2 (a2c).

Graphical Neural Networks

- Neural Networks design to perform inference on data described by graphs
- More optimal frameworks for solving and optimizing real world design problems

Robotics: Mobile Arduino Based Scanning Robot

3d printer: complete rebuild/with modifications

Project Portfolio: <http://dan.laceys.com/>

GitHub: <https://github.com/FernandoRando1>

TECHNICAL SKILLS

- Certifications: CNC, Lathe, Mill
- Welding
- 3D Printing (adv)
- Circuit board prototyping
- CAD (Solidworks, Ansys, Fusion 360, Autodesk Inventor)
- C++, Java, Python, MATLAB, and more