



owchariwt@gmail.com

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<https://theodorowchariw.github.io/Portfolio-Theodor/>

## Skills & Tools

- Programming Languages: Python, R, MATLAB, C, C++, Verilog, VHDL, HTML, Java, JavaScript, CSS
- AI & Data Science: Machine learning, semi-supervised learning, deep learning, big data analysis (PySpark), model development
- Embedded & Hardware Systems: Radar systems, Raspberry Pi, circuit design, soldering
- Deployment & Infrastructure: Singularity containerization, HPC (SLURM, GPU & job configuration)

## Education

Expected December 2025

### Master of Science:

Artificial Intelligence

### NSF NRT-HDR Certificate:

Data Science

### Florida Atlantic University

Boca Raton, Florida

GPA: 4.0

May 2024

### Bachelor of Science:

Computer Engineering

### Florida State University

Tallahassee, Florida

GPA: 3.401

## Languages

**English:** Native

**Spanish:** Intermediate

# Theodor Owchariw III

## Professional Experience

### NSF NRT-HDR: Graduate Traineeship in Data Science Technologies and Applications

Boca Raton, Florida

05/2024 – 08/2025

- Completed interdisciplinary foundation courses designed to align knowledge across various fields
- Participated in boot camps, in-depth elective courses, and professional workshops to enhance technical skills and professional development
- Conducted research projects in collaboration with university faculty

### Victor Electric Service - Electrician's Apprentice

Dania Beach, Florida

03/2020 - Present

- Trained under a licensed electrician to gain hands-on experience and build foundational knowledge in electrical systems and trade practices
- Assisted with electrical installation tasks including wiring, breaker box installation, and appliance setup
- Utilized measuring and testing instruments such as ohmmeters and voltmeters, efficiently and safely to complete installations and repairs

## Academic Research & Projects

### Counting Underwater Manatee Aggregations using Deep Learning (Master's Thesis)

Florida Atlantic University

01/2025 - Present

- Collected, preprocessed, and labeled image data using custom segmentation masks
- Implemented semi-supervised learning to finetune YOLO models for manatee aggregation detection, leveraging both manual labels and pseudo labels
- Tools: YOLO, PyTorch, OpenCV

### LexEmetica Clerk – AI Legal Brief Generator

Florida Atlantic University

2025

- Developed a containerized, HPC deployable prompt based LLM pipeline for automatic legal brief generation, featuring citation validation, hallucination control, and a user-friendly web interface for students and professionals
- Tools: Python, FastAPI, Mixtral, Ollama, regex, Singularity, ReportLab, React, Tailwind CSS

## Honors & Awards

- Kathryn Diane Noussesee Endowed Scholarship Fund (2025)
- FSU Dean's & President List (2023-2024)
- Dr. Gail Skofronick-Jackson Memorial Scholarship Recipient (2023-2024)
- Florida Academic Scholars Award – Bright Futures 100% Tuition Scholarship (2020)
- Seal of Bilingualism in Spanish (2020)

## Deep Learning for Identification of Toxic Plant Species

Florida Atlantic University

2024

- Trained InceptionV3, ResNet-50, and VGG-16 CNN models on a dataset of 10,000 plant images to classify species as toxic or non-toxic, achieving 85% validation accuracy
- Tools: Python, TensorFlow, Pandas, OpenCV

## Forecasting Shark Populations Using LSTM Neural Networks

Florida Atlantic University

2024

- Applied one-hot encoding, cyclical feature engineering for temporal data, spacial normalization, and bucketed classification to forecast shark population given shark species, GPS coordinates, and year using a LSTM neural network with 91% validation accuracy
- Tools: R, TensorFlow, dplyr

## Additional Work Experience

- Landscaping Services (2019-Present)
  - Helped run a small business mowing, edging, and maintaining properties
- Self-Maintained Automotive Mechanic's Apprentice (2017-2020)
  - Completed two years of Auto Shop courses at Cooper City High School under the supervision of a certified Auto Tech instructor
- Antonio's Pizza Restaurant – Host (2018-2019)
  - Handled front of house duties by greeting customers, taking and relaying food orders, and ensuring timely service and order accuracy

## Additional Information

### LEADERSHIP EXPERIENCE

- Engineering Senior Design Team Leader 2023-2024
  - Led the design and implementation of a Naïve Bayes based driver drowsiness detection system in MATLAB, integrated into a prototype rear-view mirror
  - Coordinated team communication, task assignments, and meetings
- Seminole Scuba Club Social Media Team Officer FSU 2022-2023
  - Created presentation slides, managed club social media, and coordinated email communications with over 300 members

### EXTRACURRICULAR ACTIVITIES

- Member, IEEE (Institute of Electrical and Electronics Engineers) 2019-2020
  - Participated in hands-on activities and events to build practical electrical and computer engineering experience

## Community Service

- Artificial Reef Monitoring Training, 2023
- Seminole Scuba Club Relay for Life Fundraiser, 2022
- Seminole Scuba Club & Hillel Cherokee Sink Cleanup, 2022
- Textbook Inventory and Restocking Assistant, 2018-2019