Edward Gaibor

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Relevant Links: [LinkedIn](#) | [GitHub](#) | [Website](#) |
Programming Languages: Python | HTML | CSS | Java | C
Technologies: sci-kit-learn | NumPy | Pandas | Flask | Matlab | Git | Joblib | ThingSpeak | Arduino | Jupyter Notebook | SSH | MatplotLib | Tkinter | WordPress | Vernier Graphical | VirtualBox | Open CV | Audacity | Discord | Tawkto | Raspberry Pi Imager | Tensorflow - Keras

WORK EXPERIENCE & ORGANIZATIONS

ML and Cybersecurity student Research Fellowship | **Starts Jul, 2023**
- $5000 Fellowship awarded for the academic year 2023-2024.
- Mentoring group sessions with 2 faculty members and research assistantship with [Ph.D. Daniel Haehn](#) related to Machine Learning and Cybersecurity.
- Participating in the 6-week "The Leadership program" by Umass Amherst

Internship at MIT - NoBrainer | **June, 2023**
- Undergraduate intern working with the project "NoBrainer" A framework for developing neural network models for 3D image processing.

Part-time web designer and Online course manager | [Website](#) | **2022-Now**
- Designed and developed an online course website with *WordPress*.
- Customer Service - over 100 chats, and troubleshooting with *Tawk.to*
- Managed domain, domain security, and hosting.

Computer Science Umass Boston Club   **2022-Now**
- Active member of the club, leading weekly meetings.

EDUCATION & SKILLS

University of Massachusetts Boston   **May 2026**
- *Computer Science* major with *Dean's merit scholarship* **($14000 yearly)**
- *The Paul English Computer Science Scholarship winner*

Certifications & College Courses
- Introduction to Cybersecurity
- Foundations of Cloud Computing
- BI Dashboards with Tableau
- ML0101SP: Machine Learning with Python
- Building Deep Learning Models with TensorFlow Skill Path
- Python for Beginners
- Introduction to Computing (CS110)
- Data Structures and Algorithms (CS210)
- Programming with C (CS240)
- Calculus 1 & 2

Languages
- *Spanish:* Native
- *English:* Fluent

PROJECTS

Hydroponic IoT Greenhouse | [Github](#) | [Paper](#) | [Website](#) | (Python, ThingSpeak, Arduino, scikit-learn)   **2021-2022**
- Improved water consumption by +90% and optimized crop growth: I used 4.8L per lettuce, the result being that my lettuce had a more significant mass than a traditionally produced crop.
- Awarded second place in the national competition Junior Water Prize of Ecuador – SIWI for "BioInv_IoT"
- Create a refill system for water reservoirs with Arduino (C++), a 24/7 monitoring system, and Abiotic data sent to ThingSpeak in real-time with MatLab triggers.
- Participated in "Innovadores" – Ambato's, Ecuador - an innovation tournament - as an exhibition project, which led to my project being implemented for my school's dining service.

Deep learning models with Tensorflow | [Github](#) | [Certification](#) | (Python, Jupyter, TensorFlow, Keras)   **Jun 2023**
- Projects include regression and classification such as: CNN model to predict Pneumonia via images, CNN model to predict galaxy type, Life Expectancy within countries, Medical Cost prediction with patient data, Patient survival rate, Air Quality predictor, Forest Cover Type Classifier (6-weeks long certification).

Interactive Exoplanet Predictor | [Github](#) | [Website](#) | (Jupyter, Python, NumPy, Pandas, Joblib, Matplotlib)   **Nov 2022**
- Scraped and processed big data from NASA's database with NumPy and Pandas.
- Predicted the number of planets based on the stellar characteristics with the scikit-learn algorithm (Systems with one star – 98% Accuracy score).
- Trained the Random Forest Classifier within shared files in the same directory with Joblib.
- Collaborator in web platform application to predict data with this algorithm (See GitHub).

Local Weather Prediction | [Github](#) | [Website](#) | (ThingSpeak, Pandas, NumPy, Sklearn, Joblib, Tkinter, Arduino)   **Jul 2022**
- Built an Arduino system to collect local environmental data, connected the electronics to ThingSpeak through C++, and utilized libraries such as Pandas, Numpy, Sklearn, and JobLib to adjust the data and train the model.
- Created the GUI app with Tkinter and transformed the format to executable format.

Hourly variation in concentration levels (μg/m3) of PM2.5, O3, SO2, and CO | [Github](#) | [Paper](#) | **Jul 2022**

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- Analyzed the hourly variation in the concentration levels of the air pollutants in 8 sectors in Quito, Ecuador.
- Compared the levels with big data processing and statistical tests such as Wilcoxon and Kolmogorov-Smirnov, finding that the Covid-19 pandemic only improved air conditions in 2 out of the 8 sectors in Quito.