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

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
- Practical Automation
- 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.

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**

- 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.

Drug Medication based on Condition | Github | Website | (Python, Jupyter, Sklearn) **Sep 2022**

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- Classified drugs with sentiment analysis and utilized user interaction to prompt the top 10 medications for the condition they entered.
- This is not a medical prescription system. It is just for the user to have a clear panorama of the possible routes they can go with medical supervision and the experience of others that already have gone througaaah that route.