Karim Alameh

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Education

2019 - 2023	**BE, Electrical and Computer Engineering,** American University of Beirut Relevant Coursework: Introduction to Machine Learning, Neural Networks, Software Engineering, Control Systems
2012 - 2018	**Lebanese Baccalaureate in General Sciences,** Saint Mary's Orthodox college

Experience

May 2021 - Sep 2021 — **Data Scientist intern,** Eyeland Capital management — New York City, NY, USA

- Created and worked on Excel data sheets for clustering as well as data cleaning.
- Created machine learning algorithms to analyze and group data.
- Applied Data analytics method for analyzing and visualizing data and KPIs.
- Used supervised and unsupervised learning methods for stock analysis.
- Used a wide variety of statistics and economics knowledge and criteria to analyze Data.
- Implemented creative data visualization techniques to represent results and draw conclusions.

Reference: Rami Sukarieh (ecoramy@gmail.com)

Sep 2021 - May 2022 — **Final Year Project,** Electrical and Computer Engineering Department — AUB

- Created the UI and frontend of an AUB student elections website.
- Worked on the backend and database implementations of the website.
- Learned and used Django for website creation
- Proficient at HTML and CSS.
- Used SQL to manipulate, create, delete entries into our datasets

Reference: Karim Kabalan (kabalan@aub.edu.lb)

Projects

Jan 2021 - Jun 2021 — **Sentiment Analysis System** — EECE 490/690 (Machine Learning)

- Designed an application that uses K-Means clustering to associate certain responses from a dataset to an individual's mood
- Developed a recommendation system that suggests the optimal activity to improve one's mood.
- Optimizing and testing different iterations of the project.

Jan 2021 - Jun 2021 — **Automated Smart Aquarium Control System** — EECE 461 (Instrumentation)

- Designed a system of sensors and instruments that automates an aquarium to present fish with optimal living conditions
- Implemented 2 specialized modes of operation for salt and water environments.
- Utilized an Arduino kit to implement the desired functions of the sensors and detect the operation conditions.

Sep 2020 - Dec 2020 — **Rotary Inverted Pendulum** — EECE 460 (Instrumentation)

- Developed a motor that balances a pendulum upright, while maintaining a balanced weight using advanced principles of control systems and mechanics

Jan 2022- May 2022 — **PV powered Electric vehicle charging station parking lot s** — EECE 675(Renewable Energy)

- Researched previous implementations of similar projects and designed an optimized instance.
- Simulated and tested a digital version of the system using analytical software.

Jan 2022 - Jun 2022 — **Encryption/Decryption Website** — EECE 455 (Cryptography)

- Created a website that encrypts and decrypts classical methodologies based on statistics analysis and algorithms.

Jan 2023 - may 2023 — **Machine learning Algorithms for ciphertext classification, decryption, and re-encryption.** — EECE 693 (Deep learning)

- Used an extensive variety of Neural Networks(LSTMs, FFNN, Autoencoders) for the project.
- Creating, cleaning, fixing, and preparation for use in data processing and testing.
- Automation of tasks using custom algorithms.
- Proficiency in Microsoft Excel for data manipulation.
- Use of mathematics and statistics to identify patterns and measure error to optimize processes.

Skills

- Programming Languages: C++, Python, CSS, HTML, MATLAB, mySQL
- Miscellaneous: Django, Data analytics, Technical report writing, Data visualization, Excel, agile methods, problem solving