YEHYA FARHAT

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EDUCATION

Syracuse University - College of Engineering & Computer Science, Syracuse, NY   August 2021 - May 2023
M.S. in Computer Science
- Conducted independent research, composed and defended a thesis centered around the intersection of machine learning and combinatorial optimization
- GPA : 3.64 / 4.0

American University of Beirut - College of Arts and Science, Beirut, Lebanon   August 2016 - December 2020
B.S. in Computer Science, Minor in Mathematics

EXPERIENCE

Teaching and Research Assistant, Syracuse University College of Engineering & Computer   January 2021 - April 2023
Science – Syracuse, NY
- Researched surrogate machine learning models for hard combinatorial optimization problems, worked on an amortized method for predict-and-optimize to achieve cutting-edge solutions with a 98% inference time on small problem instances
- Served as a TA for Advanced Computer Architecture, Spring 2022; Structured Programming and Formal Methods, Fall 2022/2023; Computer Organization & Programming Systems, Spring 2023

Data Scientist, Qnovo – Milpitas, CA   June 2022 - August 2022
- Operated as a full-stack engineer to design and build a battery testing platform and a corresponding user interface to query the database, reduced time spent on ad-hoc reporting from 2-3 days to 10 minutes
- Cleaned and performed exploratory data analysis on 5M + rows of time-series data. Analysis was used to confirm the existence of a sensitivity problem in battery capacity estimates

Software and Automation Engineer, Precast FZCO – Dubai, UAE   April 2021 - July 2021
- Devised a cloud-based Microarchitecture; employed Microsoft azure to create a correspondence between CMMS software and the clients IOT software, streamlined task creation between software systems, reduced task creation time to zero
- Designed and implemented an integration module to connect multiple ERP, IOT, and CMMS software, the module included an interface to allow clients to specify what information to streamline between softwares

PROJECTS

Optimal Stopping Problem with unknown variable   August 2021 - December 2021
- Analyzed one form of the optimal stopping problem known as the secretary problem, the problem has a closed form statistical solution. But it requires the number of candidates to be known beforehand
- Collaborated with a team member to attempt to find an efficient solution to the partially defined problem without access to the number of candidates; Project link: https://github.com/keith-leung/cis667-secretary-problem

University Petition system   August 2020 - December 2020
- Cooperated with 3 other team members to build a petition website for the American University of Beirut. Students submit petitions and transcripts; transcripts are parsed and the chairperson is informed if the requirements are met
- Implemented software saves the chairperson hours of organization and studying student cases; Project link: https://github.com/yehyafarhat1/rpms

Power Monitor   January 2020 - July 2020
- Cofounded & developed power monitor, pitched to Lebanon's public government energy sector. Enable the sector to transition into digital bills and cut down on the required transportation. Saving the government thousands of dollars each month
- Programmed a raspberry pi to capture images of an electrical odometer, allows users to track daily/monthly usage, electricity bill, and carbon footprint using the phone application; Product website: https://powermonitoraub.wordpress.com/

TECHNICAL SKILLS
- Programming Languages: Python | C++ | C | C# | SQL | R | JavaScript | Dart | Julia | Java
- Software Knowledge: Visual studio, Microsoft SQL workbench, XCode, Android Studio, Heroku, MongoDB; Google Firebase, Microsoft Azure, Selenium, REST API, GraphQL, Pytorch, Numpy, Keras, Flask, React, Flutter