Anas M.Amer Hosami

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Education

❖ American University of Beirut – Beirut, Lebanon: B.E. in Electrical and Computer Engineering - May 2020, **Distinction.** Taken *Graduate* Courses: Power Electronic Systems, Renewable Energy Systems, Advanced Power System Analysis.

Publication

Customizing Travel Packages with Interactive Composite Items

Singh, Manish, Ria Mae Borromeo, Anas Hosami †, Sihem Amer-Yahia, and Shady Elbassuoni. 'Customizing Travel Packages with Interactive Composite Items', 2017 IEEE International Conference on Data Science and Advanced Analytics (DSAA).

Work Experience

Computer Science Department, AUB - Beirut, Lebanon Research Assistant

03/17 - 05/17

- Collaborated with a research team from France, Japan, and India under the supervision of Le Laboratoire d'Informatique de Grenoble in France on customizing travel packages with interactive composite items
- Developed a user interface (UI) for generating customized travel packages in a given city using Google Maps JavaScript API.
- Led and managed the research team throughout the design and implementation processes.

Computer Science Department, AUB - Beirut, Lebanon Research Assistant

02/18 - 07/18

- Developed the pseudocode of statistical algorithm that demonstrated the algorithmic bias in human-powered data acquisition.
- Aided a research colleague with her dissertation and facilitated a high level of research by converting complex mathematical algorithms into Python.
- Collaborated with a research team under the supervision of Le Laboratoire d'Informatique de Grenoble in France and submitted a paper (pending for approval) for the International Conference on Data Science and Advanced Analytics (DSAA'2020) that discusses quantifying and addressing disparity in human-powered data acquisition.

${\bf Electrical\ and\ Computer\ Engineering\ Department,\ AUB\ -Beirut,\ Lebanon\ Research\ Assistant}$

02/19 - 05/19

- Worked with a research team (students within the computer and electrical engineering department and mechanical engineering department) under the supervision of two professors (Dr. Imad El Hajj and Dr. Daniel Asmar) on finding a new design for a sensor that measured the spilled oil thickness on water.
- Summarized reviewed literature and provided reports on publications of previous design attempts.
- Initiated and finalized the initial design stage of a fluorimeter sensor that measured the spilled oil thickness with a micrometer resolution which was based on the reflection nature of the oil.

Khatib & Alami Consolidated Engineering Company - Beirut, Lebanon Electrical Engineering Intern

06/19 - 08/19

- Prepared a preliminary study for the Distribution Power System Planning of Al-Janaderia residential area in KSA.
- Developed the lighting design plans of two office-buildings with relying on the illumination levels using the Dialux Software.
- Assisted the Senior Power Engineer in preparing the bill of quantities of Al-Riyadh Metro Project in Saudi Arabia.

Electrical and Computer Engineering Department, AUB - Beirut, Lebanon Teaching Assistant

08/19 - 12/19

- Offered problem-solving sessions on a weekly basis for forty mechanical students in Electronics course under the supervision of Dr.Lama Hamandi.
- Converted traditional PowerPoint presentations into up-to-date, engaging, and dynamic presentations.
- Helped the professor by grading the students' exams and quizzes

PROJECTS ACCOMPLISHED

Electrical and Computer Engineering Department, AUB - Beirut, Lebanon

Implemented an electric vehicle simulation on three platforms: Simulink real-time, Opal-RT 4200 real-time simulator, and HIL platform with a physical inverter tied to Opal-RT. The goal from these simulations was to stress the inverter for accelerated testing purposes. This project was a part of a larger one resulting from a collaboration between UConn University and TOYOTA MOTOR NORTH AMERICA.

Tool & Technologies

- Advanced knowledge in Homer Software, LabVIEW, Matlab, Simulink, VHDL, and Dialux.
- Fluent in Java Programming language, Python, JavaScript, PHP, MySQL HTML, CSS.



Shady Elbassuoni
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To whom it may concern,

I am writing to recommend Mr. Anas Hosami. I have closely worked with Anas as his supervisor in two different research project. In the first project, Anas has developed an interactive GUI for generating customized travel packages in a given city. In the developed GUI, users are displayed an interactive map of a city where points of interests (POIs) are recommended to users based on various criteria such as travel preferences, cohesiveness of the POIs recommended and their coverage of the city. All the recommended POIs are displayed on the map and the user can interact with them to replace, remove, add or generate POIs in a given area of the city.

Anas' contribution in the work was both significant and impressive. This was an ongoing project with colleagues in France, India and Japan and Anas was up to speed in no time. The GUI was extremely appealing, fully functional and very efficient. This has demonstrated that Anas has an excellent set of technical skills. It has also demonstrated self-motivation and independence, since Anas was really driving the whole design and implementation processes. He contributed with many creative ideas to tackle any issues we have encountered and was very efficient in his work. Anas is also a very pleasant person to work with and exhibits the highest level of professionalism, something that is quite impressive for someone at this early stage of their professional life.

The second project that Anas worked with me on aimed to quantify and address disparity in human-powered data acquisition. We focused on the case where the data acquisition process involves ranking of people and we defined disparity as the unbalanced targeting of people by the data acquisition process. To quantify disparity, Anas formulated an optimization problem that partitions people on their protected attributes, computes the qualifications of people in each partition, and finds the partitioning that exhibits the highest disparity in qualifications. Due to the combinatorial nature of our problem, Anas devised heuristics to navigate the space of partitions. Anas also conduct a series of experiments on real and simulated datasets that demonstrate that our proposed approach is successful in quantifying and addressing ranking disparity in human-powered data acquisition. Again in this project, Anas played a key role in driving the whole project. It demonstrated Anas has the highest level of computational thinking and excellent technical and communication skills.

Without any doubt, I would highly encourage you to consider Anas. There is no question that he will be a very valuable asset in your organization or project. Please do not hesitate to contact me for any further information.

Sincerely,

Shady Elbassuoni