Guy Bou Lahdou

Greater Boston Area | 765-775-6377 | guy.bou.lahdo@gmail.com | linkedin.com/in/guybl | github.com/glahdou

EDUCATION

Northeastern University — Boston, MA
Master of Science in Computer Science — *Sep. 2020 – May 2022*

Purdue University, Depa — West Lafayette, Indiana
Master of Science in Environmental & Water Resources Engineering — *Aug. 2012 – Aug. 2014*

American University of Beirut — Beirut, Lebanon
Bachelor of Engineering in Civil & Environmental Engineering — *Oct. 2007 – Jun. 2011*

EXPERIENCE

Engineering Project Manager — Aug. 2018 – Present
Irrigation Consulting Inc. — *Nashua, NH*

- Managed projects from conception, coordination, execution, cost control, to site supervision and commissioning.
- Advised clients on sustainable irrigation water management practices and green building infrastructure.
- Managed of a team of irrigation designers on various complex irrigation projects.
- Maintained working relationships with clients and various industry representatives.
- Supervised the construction of various rain water harvesting systems for Green Building throughout the US.
- Lead coordination and design meetings to progress the design of rainwater harvesting systems.

Water Resources Engineer — Aug. 2014 – Aug. 2018
Irrigation Consulting Inc. — *Pepperell, MA*

- Designed various wet utilities/infrastructure of irrigation centric projects. This includes rainwater harvesting stormwater plans, stormwater conveyance, pumping design, structural design, irrigation supply and distribution for large landscapes, small scale water treatment systems, and groundwater wells.
- Prepared various hydrologic studies to support the design of hydraulic interventions.
- Developed a landscape hydrology and irrigation model coupled with a sizing algorithm (Python).
- Modeled and designed rainwater harvesting systems as well as pumping and control systems for various landmark commercial and LEED certified projects (tanks ranging from 10,000 gallons to 500,000 gallons).

Research Assistant — Jan. 2013 – Jun. 2014
Purdue University, Hydrologic Impacts Group — *West Lafayette, IN*

- Developed a novel big data integration and analysis approach to assess controlled and free draining drainage systems leading to important insight on how hydro-climatological forcings affect system's functionality and effectiveness on a physical basis. Results were published in a peer reviewed journal I authored.
- Project was part of Sustainable Corn project that is funded by USDA-NIFA.

Research Associate — Oct. 2011 – Oct. 2012
Qatar Environment & Energy Research Institute, Qatar Foundation — *Doha, Qatar*

- Member of the Soil-Water Modeling and the Water Energy Food Nexus Policy Research Groups.
- Actively participated in several stakeholder meetings and strategic planning activities such as the institute's annual retreat, and British Council's Energy Security Research Symposium. Represented the institute at numerous international exhibitions such as the World Petroleum Congress, and Qatar Foundation's Annual Research Forum.

PROJECTS

Rain Water Harvesting for Green Buildings | *Python, Flask, Pandas* — September 2020 – Present

- Development of a full-stack web application with Python & Flask that aims at providing a SaaS Hydrological modeling service of green building landscapes for Architectural clients.

SAT Solver | *Python* — December 2020

- Implemented a basic Boolean Satisfiability Problem Solver on Python.

Publications

- *Guy Bou Lahdou, Laura Bowling, Jane Frankenberger, Eileen Kladivko (2019) Analysis of Drainage Events in Free Draining and Managed Subsurface Drainage systems. Journal of Agricultural Water Management.*

- *Andrea D. Basche, Gabrielle E. Roesch-McNally, Lindsay A. Pease, Christopher D. Eidson, Guy Bou Lahdou (and others, 2014) Challenges and opportunities in transdisciplinary science: The experience of next generation scientists in an agriculture and climate research collaboration. Journal of Soil and Water Conservation 69(6):176-179. DOI: 10.2489/jswc.69.6.176A.*

- *Braudeau EF and Mohtar RH (2014) A framework for soil-water modeling using the pedostructure and Structural Representative Elementary Volume concepts. Front. Environ. Sci. 2:24. DOI: 10.3389/fenvs.2014.00024 (Acknowledgement).*

- *Reclaiming Traditional Water Conservation Practices in Rural South Lebanon. Paper Submitted and Presented at the Tenth Faculty of Engineering and Architecture Student Conference, May 18-19 2011, American University of Beirut, Beirut, Lebanon (Achieved 1st Place for Best Paper out of 25 teams).*

Skills

Languages: Java, Python, C/C++, Matlab
Frameworks: Flask
Developer Tools: Git,Poetry, VS Code, Visual Studio, IntelliJ
Libraries: pandas, NumPy, Matplotlib
Software: ArcGIS, Erdas Imagine

Languages & Skills

Languages: Arabic (Mother tongue), English (Fluent), French (Fluent), German (B1 Level)
Skills: Soil-water modeling, Hydrological Modeling, Hydraulic Modeling, Green infrastructure, CFA Level 1
Hobbies: Hiking, Cycling, Value Investing, Traveling, Guitar playing
Miscellaneous: Startup Advisor– Palmos (Boston, Massachusetts) –Wireless sensor network for Hydrological risk prediction. Youth Advisory Committee at Progressive Vellore (NGO in Tamil Nadu India)