

Sara Soueidan | Data Scientist

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Neuroscientist turned data scientist. I explore all networks with inexhaustible curiosity and a thirst for connection. Turning insights into action, I strive to always provide data driven solutions.

SKILLS

- Backend: Python, MySQL, PostGreSQL, Git, VSCode, Natural Language Processing, Music Information Retrieval, pgAdmin, MVC Applications, Google Cloud Computing, DevExpress, PowerBI
- Frontend: HTML5, CSS3, JavaScript, Bootstrap
- Healthcare: GDPR, EMR, EHR, HIPAA

EXPERIENCE

General Assembly | Data Science Immersive

March 2020–Present | Washington, D.C.

Completed 500+ hour immersive course, including 25+ labs and 6 projects:

- Built music information retrieval machine learning model that predicts composition era of classical music recordings with ~80% accuracy by decomposing raw audio files to extract meaningful pictorial and numeric information (melspectograms, chromagrams, mel-frequency cepstral coefficients)
- Developed a tool for the Federal Emergency Management Agency that identifies power outage events by analyzing temporo-spatial social media data
- Utilized Natural Language Processing to predict topic from social media post with ~90% accuracy

National Mental Health Programme | Information Management Officer

December 2017–May 2019 | Beirut, Lebanon

- Managed cross-functional team (5-15) throughout all stages of the AGILE development process
- Led 4 monthly country wide inter-agency meetings focused on aid deployment and coordination with ~60 organizations (UN, WHO, MSF)
- Designed, built, deployed and maintained five inter-connected software platforms for the National Mental Health and Substance Abuse department

University of Maryland | Laboratory Manager

December 2016–May 2017 | College Park, MD

- Managed operations in molecular genetic research lab with ~6-10 members

University of Maryland | Laboratory Technician

September 2014–November 2016 | College Park, MD

- Investigated auditory processing in the avian cochlear nucleus using electrophysiology

EDUCATION

The College of William & Mary | B.S. Neuroscience

May 2014 | Williamsburg, VA

Relevant Courses: Cellular Biophysics and Modelling, Mathematical Biology, Applied Cellular Neuroscience and Systems Neuroscience (Graduate)

University of Maryland | Science in the Evening

May 2016 | College Park, MD

Relevant Courses: Special Topics in Biology, Research Statistics

PROJECTS

- MHMIS: Mental Health Management Information System (available upon request)
- 4Ws: Who is Doing What, Where and When [link](#)
- Del Negro Website [link](#)
- Music genre classification [link](#)
- Reddit post classification [link](#)
- Identifying utility outages [link](#)

PUBLICATIONS

Lubejko ST, Fontaine B, **Soueidan SE**, MacLeod KM. Spike threshold adaptation diversifies neuronal operating modes in the auditory brain stem. J Neurophysiol. 2019;122(6):2576-2590. doi:<https://doi.org/10.1152/jn.00234.2019>

Eisenbach SL, **Soueidan SE**, MacLeod KM. Presynaptic GABAergic receptors modulate inhibitory synaptic feedback in the avian cochlear nucleus angularis. bioRxiv. doi:<https://doi.org/10.1101/619783>

Picardo MCD, Sugimura YK, Dorst KE, **et al**. Trpm4 ion channels in pre-Bötzinger complex interneurons are essential for breathing motor pattern but not rhythm. PLoS Biol. 2019;17(2):e2006094. Published 2019 Feb 21. doi: <https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.2006094>

GENERAL SKILLS

- **Platforms:** Microsoft Suite, GSuite, Adobe Suite
- **Project Management:** Cross-functional project management, management analytics
- **Training:** Technical trainings to non-technical audiences (~10-60 participants)
- **Budget:** Budget planning and analysis
- **Language Skills:** English (native proficiency), Arabic (intermediate proficiency),
- **Written and Oral Communication:** Internal and external stakeholder communication, contract writing