SAMI AMER

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EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

B.S. in Computation & Cognitive Science
Expected June 2023 | Cambridge, MA
Cumulative GPA: 4.3 / 5.0
Relevant Computational Coursework: Data Structures & Algorithms • Machine Learning • Fundamentals of Programming • Discrete Mathematics • Computational Thinking & Data Science
Relevant Cognitive Science Coursework: Neuroscience • Computational Cognitive Science • Linguistics • Neurogenomics • Machine-Motivated Human Vision

SKILLS

PROGRAMMING
Over 100,000 lines: Python3
Over 10,000 lines: MATLAB
Over 1,000 lines: Rust • Swift • SQL • R

SOFTWARE EXPERTISE
PyTorch • NLTK • Git • Jupyterlab • LaTeX • Qt • AWS • Unix • Postgres • TensorFlow

LANGUAGES
English (Native) • Arabic (Native)

PRESENTATIONS

The Lancet Palestinian Health Alliance Conference (Beirut, Lebanon – 2018): Presented my research in [2] orally in front of almost 100 published doctors and students. Was selected to be part of approx. 40 speakers from a pool of 350 applicants.

PUBLICATIONS

[1] **Amer, S.** & Khateeb, E. (2021). Factors related to dietary habits, energy drink consumption, and physical activity in marginalized Palestinian schools: A cross-sectional study. *Health Promot* 11 (3), 330. https://dspace.alquds.edu/handle/20.500.12213/6444.

[2] **Amer, S.**, Khateeb, E., Hassan, A., & Musa, F. (2019). Dietary habits, energy drink consumption, obesity, and physical activity in marginalised Palestinian schools in the West Bank: a cross-sectional study. *The Lancet* 393, S13. https://doi.org/10.1016/S0140-6736(19)30599-9.

RESEARCH AND WORK EXPERIENCE

MIT LABORATORY FOR INFORMATION & DECISION SYSTEMS (LIDS) | Software Engineering Research Assistant
September 2021 – present | Cambridge, MA
- Working in collaboration with Massachusetts General Hospital and Dana-Farber Cancer Research Center to create Python libraries and frameworks for RNA Sequencing Data, making it easier for doctors and researchers to go from raw data to actionable results without intimate knowledge of the code that runs the calculations.
- Working under Prof. Devavrat Shah.

LEARN VENTURES | Software Engineering Intern
June 2021 – September 2021 & January 2022 | Cambridge, MA (Virtual)
- Solely in-charge of the company's move from 2D to 3D registration, worked in both Python and C++ to find ways to implement scale-invariant feature transform (SIFT) and other volume registration techniques in 3D.
- One of the lead developers of a data simulator for testing image registration. One of two lead developers in charge of unit testing for the company's Starfish database.

MIT MEDIA LAB, PERSONAL ROBOTICS GROUP | Software Engineering Research Assistant
February 2020 – August 2020 | Cambridge, MA
- Used Python to create essential scripts that extracted and sorted data to allow researchers to conduct their work.
- Learned and implemented video editing techniques, in conjunction with Python programming, to edit, sync, and render videos from varying sources to allow researchers to conduct their work.
- Worked under Prof. Cynthia Breazeal and Dr. Sharifa Alghowinem.

LEARN VENTURES | Software Engineering Intern
August 2020 – February 2021 | Cambridge, MA (Virtual)
- Used Python in conjunction with internal tools to create, test, and integrate Starfish Image Recognition pipelines for reading and compiling cellular data from microscopic images.
- Singularly responsible for critical parts of the pipeline and involved in the overall planning of the project.
- Used Python, Jupyter, and in-house software to create courses from scratch for a wider audience, focused on more efficiently bringing teaching to the online platform.

FLOW.PS | Intern
December 2019 – March 2020 | Ramallah, West Bank, Palestine
- Worked to bridge the gap between geo-spatial information and policy-makers, investors, accelerators in the Palestinian Innovation Ecosystem.
- Tasked with creating scripts in Python to import, scrape, and export data using mostly REST APIs.

AL-QUDS UNIVERSITY | Research Assistant
November 2017 – March 2018 | Jerusalem, Palestine
- Worked with data entry and analysis of over 190 respondents and 7000+ data points.
- Dealt with dental health of underprivileged mothers and their young children.
- Worked in conjunction with the Dean of Scientific Research at Al-Quds University in Palestine.