
EDUCATION

- **University of Washington, Seattle (September 2021-Present)**
Master's in Civil and Environmental Engineering
- **Technion - Israel Institute of Technology, Haifa, Israel (August 2017 – August 2021)**
Bachelor of Science in Civil and Environmental Engineering

RESEARCH AND WORK EXPERIENCE

- **Software Engineer, Advisor: Prof. Kyla Drushka, Air and Remote Sensing department, Applied Physics Lab, University of Washington (Nov 2022-Present)**
Developing/adding new features to the open-source package as part of NASA's Adopt a Crossover Program to aid in the planning of in-situ campaigns for the Surface Water Ocean Topography satellite mission.
- **Research Assistant, Advisor: Prof. Parker McCready, School of Oceanography, University of Washington (Sept 2022-Present)**
Designing 2D interactive visualization tools for Live Ocean Model in the Puget Sound region using D3.js and other JavaScript libraries.
- **Teaching Assistant, Physical Hydrology, Prof. Erkan Istanbulgullu, University of Washington (Sept 2022-Present)**
Grading weekly assignments/final exams, holding weekly office hours and helping students with project work.
- **Graduate Student Research Assistant, Advisor: Prof. Kyla Drushka, Air and Remote Sensing department, Applied Physics Lab, University of Washington (June 2022-Sept 2022)**
Developing an open-source python package as part of NASA Adopt a Crossover Program to help plan in-situ campaigns.
- **Grader, Hydraulic Design for Environmental Engineers, Prof. Erkan Istanbulgullu, University of Washington (Jan 2022-Mar 2022)**
Grading weekly assignments, final exams and helping students with software related issues.
- **Undergraduate Research Assistant, Flow Control Lab, Advisor: Prof. David Greenblatt, Technion (Sept 2020 – Aug 2021)**
Designing a small desalination system for brackish water to produce potable water using the power generated by a vertical axis wind turbine (Flagship Energy Project).
- **Undergraduate Research Assistant, Water and Energy Technologies (WET) Lab, Advisors: Prof. Guy Ramon & Prof. Yehuda Agnon, Technion (Sept 2020 – Mar 2021)**
Improving the performance of wet thermoacoustic engine by finding different ways to re-wet the heat exchanger and designing new features for heat exchanger, trying to predict the outcomes by running simulations on MATLAB and delta EC software.
- **Undergraduate Research Assistant, Advisor: Prof. Ori Lahav, Technion (June 2020 – Feb 2021)**
Quantifying the amount of heavy metal cations like cadmium, mercury adsorbed in the water distribution pipes in an event of contamination and finding for a suitable treatment for it using ICP-MS analysis.

ACHIEVEMENTS AND ACCOMPLISHMENTS

- **Technion – Dean's List of Honor (Spring 2021)**
- **Technion – International School of Engineering Full Academic Scholarship (2017-2021)**

RELEVANT COURSEWORK

Engineering

Hydrodynamics
Field and Measurements in
Hydrology and Hydrodynamics
Advanced Surveying Techniques
Fluid Mechanics
Water Chemistry

Mathematics

Statistics and Probability
Ordinary Differential Equations

Linear Algebra
Calculus 2
Calculus 1

Programming

Scientific Computing
Data Analysis in Water Sciences

Geospatial Data Analysis
System Analysis
Numerical Analysis

TECHNICAL SKILLS

Programming/Scripting Languages	Python, C, C++, JavaScript, CSS, HTML
Vision/ Deep Learning	MATLAB
Database	MYSQL
Miscellaneous	Revit, HEC-ras, PHREEQC, SAP2000, DeltaEC, VICO, Lingo, TransCAD, AutoCAD, Solidworks, ArcGIS, QGIS, stasoft4, Microsoft Office, Pix4D, EPA_SWMM, EPA_NET, Cloud Compare, PHREEQC, Labview, LaTeX

COURSE PROJECTS

- **Data Visualisation**
Developed an interactive visualization for surface drifters in Puget Sound using Live Ocean model using D3.js.
- **Data Analysis in Water Sciences**
Explore and evaluate the various factors that contribute to snow melt on the Mt. Rainier.
- **Advanced Surveying**
Timeseries analysis of the Easton glacier using UAV data.
- **Geospatial Data Analysis**
Identify areas in the ocean that has nutrient and good temperature where we can grow kelp for carbon capture.
- **Designing water distribution system for three cities in Israel**
Designed the water supply pipelines for three cities in Israel by predicting their water demand in next 20 years based on the rainfall data from previous years.
- **Hydraulic Engineering**
Designing a reservoir, catchment structure, pump stations, and main pipe irrigation supply system from Kishon river.
- **System Analysis Project**
Solving a dynamic programming problem using Lingo.

SERVICES

- **Volunteer, Engineers Without Borders, Technion chapter** (April 2019-January 2022)
- **Study in Israel Student Ambassador** (April 2021-Present)