



## **Tomer Chen**

### **PROFESSIONAL EXPERIENCE**

#### **2019 - Present**

Junior Partner, Consulting Engineer and Surveyor, MARTIN, OTTAWAY, van HEMMEN & DOLAN, INC. Areas of specialization include forensic engineering, valuations, offshore operations, surveys, environmental management, and project management.

#### **2018 - 2019**

Graduate Student Research Assistant, UNIVERSITY OF MICHIGAN, Ann Arbor, MI - Extracted data using Python from a 2013 voyage of the *R/V Knorr*, from a 2012 model trials of the *R/V Melville*, and from concurrent ship motion data processed using SHIPMO.BM, a two-dimensional strip theory seakeeping program, to analyze the trajectory and motions of the vessels. Comparisons of this data with numerical predictions used in the development of a digital twin framework.

#### **2017 - 2018**

Research Assistant, UNIVERSITY OF MICHIGAN, Ann Arbor, MI - Designed the experimental setup and conducted tests of regular waves in the Wind-Wave Tank for the development of a transfer function. Investigated the temporal and spatial evolution of wind-generated waves at various wind speeds and short fetch lengths to support theoretical estimations of wave growth functions and depict capabilities of modeling developing waves in a controlled laboratory environment.



## **2017**

Engineering Intern, GIBBS & COX MARITIME SOLUTIONS, Arlington, VA - Estimated structural weights of deck plans, shell expansions, and electrical power distribution system drawings for military vessel. Modeled a vessel, performed intact stability tests, and found hydrostatics characteristics based on ABS criteria. Investigated fairing of a customized adapter for a sonar window for the *USNS Waters*. Presented recommendations to Lockheed Martin who accepted the recommendations. Implemented ASSET to model green technology on a Fast Response Frigate.

## **2016**

Engineering Intern, SAFE BOATS INTERNATIONAL, Tacoma, WA - Compiled part weights from diagrams to accurately describe weight of the MK VI Patrol Boat. Performed inclining experiments on the MK VI to determine the hydrostatic characteristics of the boat. Edited design drawings based on comments from the U.S. Navy during performance review trials.

## **Education and Professional Qualification**

Master of Science in Naval Architecture and Marine Engineering, University of Michigan, 2019

Thesis: "Comparison of Model Ship Motions with Numerical Predictions"

Bachelor of Science in Engineering in Naval Architecture and Marine Engineering, University of Michigan, 2018

Senior Capstone Project: "Design of the USCG Polar Icebreaker"

## **Notable Projects**

Investigated the temporal and spatial evolution of wind-generated waves, 2018

Performed inclining experiments for the MK VI Patrol Boat, 2016

Investigated accuracy of wave motion predictions for the Environmental Ship Motion and Forecasting Project (ESMF) under the direction of Professor Bob Beck, 2015

Designed and built a Formula SAE car for competition and won first prize in the design category, 2014



## **Publications**

“Pushing Boundaries: Investigating the *Golden Ray* and Other Vessel Catastrophes,” presented at the SNAME Maritime Convention, Houston, TX, September 27, 2022

“Comparison of Model Ship Motions with Numerical Predictions,” University of Michigan, Naval Architecture and Marine Engineering Master’s thesis, May 1, 2019

“Design of the USCG Polar Icebreaker,” University of Michigan senior design project, presented April 27, 2018

“Experimental Study of the Spatial and Temporal Evolution of Wind-Generated Waves,” Senior research project presented at the SNAME Maritime Convention, Providence, RI, October 29, 2018

## **Memberships**

Accredited Member of the American Society of Appraisers

Associate Member of the Society of Naval Architects and Marine Engineers

Adjunct Member of the Maritime Law Association of the United States

## **Tools and Software**

Python, MatLab, LaTeX, AutoCAD, Rhino 3D, MaxSurf, GHS, MIG Welding

## **Awards**

2017 Recipient of the Frank C. and Irving Pahlow Merit Scholarship, University of Michigan Department of Naval Architecture and Marine Engineering

## **Languages:**

English, native

Hebrew, native

Spanish, elementary conversational

French, elementary conversational

**Nationality:**

US Citizen; Israeli Citizen

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**Blog Posts by Tomer Chen**

- [Dumpster Diving for Truth](#) May 14, 2021
- [Sailing to the Future](#) December 22, 2020
- [USCG Day and History](#) August 4, 2020
- [Decarbonization of the Maritime Sector](#) July 16, 2020
- [Oceans as a Renewable Power Source on a Global Scale](#) July 9, 2020
- [U.S. National Maritime Day](#) May 22, 2020
- [COVID-19 Field Work Procedure](#) April 2, 2020
- [Office COVID-19 Protocol](#) March 18, 2020
- [500 Years of Circumnavigation](#) September 25, 2019