

# KAYLIE COHANIM

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## EDUCATION

University of California, Los Angeles

**B.S. Mathematics Atmospheric & Oceanic Sciences**

Sept 2017 – Dec 2019    Los Angeles, USA

- **Relevant Undergraduate Coursework** - Linear Algebra, Linear and Nonlinear DE, ODE, PDE, Numerical Analysis I & II, Real Analysis, Atmospheric Dynamics and Thermodynamics, Numerical Methods in Atmospheric Sciences, Physical Oceanography, Geophysical Fluid Dynamics, MATLAB, GIS.
- **Relevant Graduate Coursework** - Introduction to Ocean Sciences (instructor James McWilliams), Atmospheric and Oceanic Fluids (instructor Marcelo Chamecki), Special Topics: Submesoscale Currents (instructor James McWilliams, audited), Departmental Seminars.
- **Major GPA : 3.73**

## RESEARCH EXPERIENCE

UCLA Ocean Dynamics Research Group

**Research Assistant I**

Apr 2018 – Present    Los Angeles, USA

*This research explores oceanic mixed-layer convection and the genesis of eddies beneath cracks in sea-ice, in an attempt to better understand and parameterize the eddy fields in polar regions. In progress.*

- Derived an analytical model predicting the depth of the mixed layer beneath cracks in sea-ice
- Developed a large eddy simulation model configuration using MITgcm
- Parameterizing horizontal buoyancy gradients

UCLA Earth, Wind and Particle Research Group

**Student Researcher**

Apr 2018 – Feb 2019    Los Angeles, USA

*Determining the effects of interparticle forces on the properties of wind-blown sand on Titan, Saturn's moon.*

- Used a Comprehensive Numerical Model of Steady-State Saltation (COM-SALT) to explore the sensitivity of the model to Titan conditions and parameters
- Parameterized the interparticle forces of wind-blown sand on Titan.

Los Angeles Valley Community College STEM Club

**Member**

Mar 2016 – Jun 2017    Los Angeles, USA

*Initiated a campus-wide composting project which cooperated with dining halls to minimize food waste*

- Co-designed a blueprint of composts with a team of undergraduate engineers and scientists
- Communicated business plans with cafeteria administrations

Phi Theta Kappa Honors Society

**Member**

Dec 2016 – Jun 2017    Los Angeles, USA

*Researched the impacts of water desalinization on the environment*

- Co-designed the research topic and plan with a group of fellow honor students
- Attended weekly meeting and library resources workshops

## INTERESTS

*Submesoscale processes, ice-ocean interactions, mixed layer dynamics, eddy mechanics and tracer transport, mixing and convection, modeling and theory.*

## PRESENTATIONS

- American Geophysical Union (AGU) - Ocean Sciences Meeting 2020 (presentation)
- California Geophysical Fluid Dynamics Conference 2019 (attended)
- AGU Meeting 2018 (presentation)
- UCLA Center for Academic Research & Excellence in Science, Engineering & Mathematics (CARE SEM) Poster Presentation 2018 (presentation)

## AWARDS & HONORS

- AGU Meeting 2018 Travel Grant
- UCLA CARE SEM 2018 Summer Fellowship
- Phi Theta Kappa Honors Society (2016–present)
- Exemplary Service Award for Outstanding Performance, Israeli Intelligence Force (2014)

## VOLUNTEERING

- Mentor undergraduate students through UCLA's Atmospheric & Oceanic Sciences Student Organization (Dec 2020– Present)
- Volunteered in Vietnam with children and veterans directly affected by Agent Orange (2015)

## TRAVEL

- Backpack the Appalachian trail (Apr 2020–Jul 2020)
- Backpacked in South-East Asia: Taiwan, Vietnam, Cambodia, Laos, Thailand (Aug 2015 – Jan 2016)

## LANGUAGES

English  
Hebrew



## ACQUIRED SKILLS

- MATLAB
- MITgcm
- LATEX
- Analytical & Numerical Analysis
- Scientific Writing & Communication

# WORK EXPERIENCE

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## UCLA Ocean Dynamics Research Group

### Research Assistant I

📅 Jan 2020 – Apr 2020

📍 Los Angeles, USA

### Student Summer Research Position

📅 Jun 2019 – Sep 2019

📍 Los Angeles, USA

## UCLA Earth, Wind and Particle Research Group

### UCLA CARE SEM Fellow

📅 Jun 2018 – Sep 2018

📍 Los Angeles, USA

Funded by UCLA's Center for Academic Research & Excellence in Science, Engineering & Mathematics Summer Program for Undergraduate Research Fellowship

## Israeli Intelligence Force

### Sergeant First Class

📅 Mar 2012 – May 2014

📍 Los Angeles, USA

- Intelligence Force Training - Certificate of Completion top of the class
- Promotion to Special Operations Unit
- Led an all-women squad to successfully complete assignments
- Created new, long-lasting regulatory guidelines to increase efficiency
- Was responsible of training and certifying new soldiers
- Presented findings and updated reports in front of chain of command
- Created multiple projects to advance intelligence gathering