

KAUSHAL GIANCHANDANI

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EDUCATION

Ph.D. in Oceanography

Hebrew University of Jerusalem, Israel (HUJI)

Oct 2017 – present

Integrated B.Sc. - M.Sc. in Physics

National Institute of Science Education and Research (NISER), Bhubaneswar, India

Aug 2012 – May 2017

SKILLS

Analytical: Climate Modeling and Forecasting, Oceanography, Renewable Energy, Statistics, Data Science

Computational: Python, MATLAB, MITgcm, Linux, Cloud Computing (Microsoft Azure)

WORK EXPERIENCE

Graduate Research Assistant, Hebrew University of Jerusalem, Israel (HUJI)

Oct 2017 – present

- Performed ETL on global data (10 billion data points) of surface winds and ocean currents.
- Engineered novel use-cases to identify if the data followed any user-defined statistical distribution.
- Improved accuracy in estimated renewable electric power from winds and currents to 99% by employing Generalized Gamma distribution.
- Programmed a state-of-the-art climate model (MITgcm) to simulate extremely cold “snowball” Earth climate.
- Tutored undergraduate students in running simulations on climate models and analyzing the data generated.

Summer Intern, École Normale Supérieure de Lyon (ENS de Lyon), France

May – Jul 2016

- Programmed a python package (pyqg) to model baroclinic flows.
- Determined how coupled effect of rotation and friction reorganizes Jet Stream-like turbulent flows.

Summer Intern, Institute of Mathematical Sciences (IMSc), Chennai, India

Jun – Jul 2015

- Numerically modeled an array of 20 coupled chemical oscillators in MATLAB.
- Constructed logic gates (parity checker, OR, NOT, NOR) by applying chemical perturbations on the array.

SELECT PRESENTATIONS

- **Johns Hopkins University**, Baltimore, MD, USA
Atmospheres and Oceans seminar
Invited talk
Jan 2021
- **Weizmann Institute of Science**, Rehovot, IL
EPScon 2019
Poster presentation
Mar 2019
- **University of Cambridge**, Cambridge, UK
Summer School on Fluid Dynamics of Sustainability and the Environment
Poster presentation
Sep 2018

FELLOWSHIPS and AWARDS

- **Innovation in Science Pursuit for Inspired Research (INSPIRE) Fellowship**
Sponsor: Department of Science and Technology (DST), Govt. of India
Aug 2012 – May 2017
- **Physics Summer Research Fellowship**
Sponsor: Institute of Mathematical Sciences (IMSc), Chennai, India
Jun – Jul 2015

PUBLICATIONS

[2] **Gianchandani, Kaushal**, Hezi Gildor, and Nathan Paldor. "[On the role of domain aspect ratio in the westward intensification of wind-driven surface ocean circulation](#)." *Ocean Science* 17, no. 1 (2021): 351-363.

[1] Campisi-Pinto, Salvatore, **Kaushal Gianchandani**, and Yosef Ashkenazy. "[Statistical tests for the distribution of surface wind and current speeds across the globe](#)." *Renewable Energy* 149 (2020): 861-876.