



## Postdoctoral Position in Offshore Energy Modeling and Mapping

Symbiotic Engineering and Analysis Lab (<https://sea.mae.cornell.edu>)  
Cornell University, Sibley School of Mechanical and Aerospace Engineering

The Symbiotic Engineering and Analysis Lab (SEA Lab) at Cornell University is seeking a postdoctoral researcher with a background in **modeling offshore energy systems** for a research project to determine the feasibility of wave-powered aquaculture farms. The project aims to develop a mapping tool to highlight potential conflicts as well as synergies that may exist between offshore wind farm developers, commercial and recreational fishers, aquaculture farmers, and wave energy developers.

Knowledge and experience with **marine hydrodynamics and modeling of offshore structures in waves** is required. Candidate should be proficient in computer programming (at least Python and/or MATLAB). Experience with the analysis of remote sensing and Geographic Information Systems (GIS) data is preferred but not required. The ideal candidate should have the confidence and a track record to quickly master analytical and software tools in new fields. The postdoctoral researcher will work in an interdisciplinary and collaborative environment. They will be supervised by [Prof. Maha N. Haji](#) (Mechanical, Aerospace, and Systems Engineering at Cornell University) and will collaborate with other research groups at and outside of Cornell.

### Required skills:

- PhD in Ocean Engineering, Mechanical Engineering, Civil Engineering, or related discipline.
- Track record of academic excellence in at least one of the following disciplines: offshore systems, offshore energy, marine hydrodynamics, environmental fluid dynamics.
- Ability to work in a multi-disciplinary team, especially strong communications, and presentation skills.
- Evidence of strong Python and/or MATLAB skills.

### Preferred skills:

- Experience in any of the following areas:
  - Geographic Information Systems data analysis
  - Remote sensing data analysis
  - Offshore aquaculture systems
- Leadership in the development and submission of successful research proposals

- Technical leadership of multi-disciplinary research projects

**Duration and start date:**

The position is intended to be for two years to allow for significant progress in the project and in the career development of the candidate. The initial appointment will be for one year, with a performance evaluation and a possible extension for a second year. The start date is flexible from February 1, 2022 onward.

**Application process:**

Submit the following as a **single pdf**: (i) one-page cover letter (including names of at least two referees), (ii) CV, and (iii) two sample publications via email to Prof. Haji at [maha@cornell.edu](mailto:maha@cornell.edu) with the subject line: *Postdoctoral Position Application*. Applications received by **January 15, 2022**, will receive full consideration; however, applications will be reviewed until the position is filled. Please reach out to Prof. Haji with any questions.

**About Cornell University:**

Cornell's main campus is located in Ithaca, NY. Nestled in New York's Finger Lakes region, Ithaca is a unique college town that is consistently rated as a top area to live, work, and study. Located at the south end of Cayuga Lake—the largest of the Finger Lakes—Ithaca boasts natural beauty in its gorges,



state parks, and waterfront. Collegetown and the Ithaca Commons are a short walk from campus, offering a city atmosphere with an array of shopping, restaurants, cultural activities and nightlife. Between urban life and alluring countryside, Ithaca has something for everyone to see and do. As the federal land-grant institution for New York state, Cornell has been part of the fabric of Ithaca since its founding in 1865.

**EEO Statement:**

Diversity and Inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans and Individuals with Disabilities. We also recognize a lawful preference in employment practices for Native Americans living on or near Indian reservations. Cornell University is an innovative Ivy League university and a great place to work. Our inclusive community of scholars, students, and staff impart an uncommon sense of larger purpose, and contribute creative ideas to further the university's mission of teaching, discovery, and engagement.