Hans B. DeJong

hansbdejong@gmail.com • Menlo Park, CA • hansbdejong.github.io

I obtained my PhD in Oceanography at Stanford University where I developed a strong passion for computer science. I am currently completing a computer science degree through UPenn to pivot into industry.

Education

University of Pennsylvania, Masters in Computer Science (MCIT), GPA: 4.0 expected 2023

Stanford University, PhD Earth System Science, GPA: 4.05

Brown University, B.A. Geology-Biology**,** GPA: 3.9

Courses and Skills

Relevant Courses: Databases and Information Systems, Web Applications (through Stanford, CS 142, MERN stack) Computer Architecture, Computer Systems Programming (Operating Systems), Data Structures and Software Design, Discrete Math, Probability, and Graph Theory, Advanced Statistical Methods, Algorithms (Princeton MOOC)

Technologies: React.js, React Router, D3.js, MySQL, MongoDB, Node.js, REST API, AJAX, Git, Docker, Material UI

Programming Languages: JavaScript, Python, Java, C/C++, HTML, CSS, MATLAB, R

Data Science: Data wrangling, data visualization, model selection, uncertainty analysis

PhD Skills: Project management, implementation, group work, technical writing, public speaking, ability to learn quickly

Projects

Automatic Sampler and Pump: Designed, built, and programmed autonomous submersible multiport water sampler and autonomous underwater pumping system that we deployed on coral reefs. Published designs in a peer-reviewed journal.

Our Breathing Planet: Built interactive data visualizations using D3.js for students to deepen their understanding of the carbon cycle by exploring expert-curated datasets.

Photo Sharing App (in progress): Building photo sharing application with the MERN stack where users can login, comment on photos, and upload new photos.

FIFA World Cup (in progress): Building website with React and MySQL (on AWS) where users can explore past World Cups including match results, player insights, and long-term trends (collaborative project).

Primate Evolution Explorer (in progress): Building a webtool where students can quickly find formatted gene sequences for primate species and genes of their choice (58 genes, 168 primate species) to build phylogenetic trees.

Professional Experience

American International School Chennai, Chennai, India 2018-2020
Computer Science and Science Teacher

- Taught high school students how to think like programmers. Collaborating with a Stanford professor, my Computer Science course was based on CS 106A, taken by over 1000 students at Stanford each year.

Stanford University, Stanford, CA 2012-2018
Doctoral Candidate and Postdoctoral Research Scientist

- 7 peer-reviewed publications in top journals; National Science Foundation Graduate Research Fellow ($138,000).
- Build computer models, collected and analyzed field data, and processed large satellite-derived datasets to study the impacts of climate change on the Southern Ocean (Antarctica).
- Presented findings at major conferences; expert reviewer for *Nature Geosciences* and *Geophysical Research Letters*.

Other

Interests: Soccer, backpacking, travel, juggling, magic tricks
Languages: French, Spanish, Tamil
Background: Born in the US and grew up in India and Madagascar; I have also lived in Mali and South Korea
Field Experience: 168 days at sea on research cruises in the Indian and Southern Oceans; scientific scuba diver (>400 dives)