Hans B. DeJong

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I obtained my PhD in Oceanography at Stanford University where I became fascinated by machine learning and Computer Science. To deepen my theoretical knowledge and technical skills, I am currently pursuing a master's degree in Computer Science at the University of Pennsylvania. My goal is 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, Computer Architecture, Computer Systems Programming (Operating Systems), Data Structures and Software Design, Advanced Statistical Methods

Programming Languages: Java, Python, C/C++, MATLAB, R, Arduino, SQL, HTML, CSS, JavaScript, Git, Docker

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

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*.

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.

Our Breathing Planet: Built interactive data visualizations using HTML, CSS, and JavaScript for students to deepen their understanding of the carbon cycle by exploring expert-curated datasets.

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

Coursework Projects: Implemented classic algorithms such as Merge Sort and Huffman coding, solved Boggle using recursive backtracking, designed multi-tier Java applications, built a reverse assembler, and programmed a shell in C.

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)