PostDoctoral Researcher · Grenoble, France · jemanjohnson34@gmail.com · +33 07 68 88 30 02

Juan Emmanuel Johnson | Resume

» I firmly believe that good software will save science...! « - Me

- Status: Post-Doctoral Researcher, Applied ML Researcher
- Fields: Machine Learning, Computational Math, Oceanography
- Stack: Python, PyTorch(-Lightning), JAX, JupyterLab
- Tools: Git, Markdown, Terminal, SLURM
- Activities: Dancing, Martial Arts

Experience

Post-Doctoral Researcher (MEOM | IGE | CNRS | University of Grenoble-Alpes) 2021 - now

- Researcher: Investigating strategies of ML use cases in Computational Oceanography.
- Consolidated large ocean simulations to meet ML-ready standards for various applications.

Machine Learning Researcher (Trillium Technologies) Jan - Aug 2021

- P1: Helped implement ML pipeline for flood detection; models deployed on UNOSAT satellites.
- P2: Helped implement ML pipeline for lightning detection via graph-based clustering.

Machine Learning Researcher (Trillium Technologies) Jun - Aug 2020

- Researcher: Investigated scalable strategies for detecting spots on stars from telescope data.
- Role: Created ML pipeline for the NN training and inference which resulted in a 10K speedup.

Ph.D. Researcher (ISP | Universitat de València) 2017 - 2021

- Researcher: Investigated the role of ML on information extraction from TB geoscience data.
- Tutorials for modern practices for DL research to transition the lab from MATLAB to Python.

Image Scientist (Collins Aerospace) 2016

- Implemented a suite of edge detection schemes within hyperspectral images.
- Designed a GUI to assist experts to easily label images to generate train/test data.

GitHub - github.com/jejjohnson | Publications - scholar.google.com

Education

Ph.D. Electrical Engineering (Universitat de València) 2017 - 2021

- Thesis: Estimating Information in Earth System Data with Machine Learning
- Setup training for efficient ML research practices with cloud computing.

M.S. Applied and Computational Mathematics (Rochester Institute of Tech.) 2013 - 2016

- Thesis: Schrödinger Eigenmaps for Manifold Alignment of Multimodal Hyperspectral Images
- Researcher: Image fusion of heterogeneous hyperspectral satellite images for biodiversity.

B.S. Oceanography, B.S. Mathematical Sciences (Florida Institute of Tech.) 2009 - 2013

- Researcher: Image Fusion of heterogeneous satellite images of Glacier termini for climate monitoring.
- Researcher: Identified causes of increased pollution transport within Indian River Lagoon.