

NICHOLAS JULIANO

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CREDENTIALS

Clearances & Access: Federal TS/SCI w/ CI Polygraph (active) | NATO COSMIC TS (active) | CAC (active)

Spoken Languages: English (native), Norwegian (Bokmål, A2 proficiency), Swedish (A1 proficiency)

HARD SKILLS

Languages: Python, Java (proficient) | HTML, Markdown (experienced) | Matlab, R, SQL, CSS, JavaScript (familiar)

Technologies/Tools/Frameworks: Nifi, Bash, PBS, Documentation (pdoc), Cuda, Anaconda, CI/CD (Gitlab), Unit Tests, Flask, Kafka, Kind

Product Deployment: Kubernetes, Helm, Docker (rootful & rootless), RKE2, Artifactory

Analytical Experience: Sensor Fusion, Computer Vision, Time Series, Kalman Filtering, Bayesian Statistics, Machine Learning, Neural Networks, Data Visualization, Model Robustness Assessment, Signal Processing, GIS

Operating/Software Systems: Linux, Mac OS, Windows, Gitlab, Confluence, Jira, Artifactory, Office365, Workable

Tasking Methodologies: SAFe Agile, FAST Agile, Kanban

EXPERIENCE

GENERAL ATOMICS - INTEGRATED INTELLIGENCE INC.

DATA SCIENTIST III | JANUARY 2023 - PRESENT

- Deploy software in air-gaped environments as a forward deployed software engineer by resolving site-specific conflicts to deliver GA-i3 products to international customers spanning languages, data sensitivity levels, and product types
- Educate end users on GA-i3 product functionality
- Serve as tech lead for multidisciplinary tracking team to deliver ATR and tracking solutions to global scale decision makers with interpretable reliability
- Serve as tech lead for multiple software libraries fulfilling core tracking functionality across the entire company's programs and portfolios
- Supervise, mentor, and advise junior data scientists and software engineers

DATA SCIENTIST II | JUNE 2022 - DECEMBER 2022

- Served as a supervisor on an agile team-of-teams to deliver novel machine learning solutions to provide key decision makers with global situational awareness via whole-earth data tasking, collection, processing, exploitation, and dissemination.
- Coordinated tasking for program epics

THE DALE ETHERIDGE PLANETARIUM AND OBSERVATORY

PROGRAM MANAGER | AUGUST 2016 - MAY 2022

- Developed and managed scientific programs, exhibits, and experiences
- Performed system administration for all planetarium and observatory hardware, software, and instrumentation
- Served as Las Vegas, Nevada's primary Astronomy expert for high-profile media events and general public outreach
- Curated museum collection of authentic Apollo-era memorabilia, meteorites, and signed astronaut portraits
- Organized the timeline, procedure, and budget of all Planetarium and Observatory programs
- Served as an Adjunct Astronomy Professor for the College of Southern Nevada

Notable Accomplishments

- Originated a no-cost internship program for informal astronomy outreach, managing and training a dynamic team of interns for several years
- Partnered with NASA JPL to create AWS-hosted exhibit software
- Hosted and provided astrophysical consultation services to Canadian Astronaut Chris Hadfield for Vanity Fair Space Movie Interview (15 million views on Youtube)
- Served as a participating scientist on the California Planet Search and the Kepler Space Mission by using the HIRES spectrometer at the W. M. Keck Observatory to analyze proprietary data to generate new findings on celestial bodies

EDUCATION

M.S. ASTROPHYSICS | UNIVERSITY OF NEVADA, LAS VEGAS | 2023

Associated Publications: "Joint Constraints on Kepler-36 from Kepler and New KECK-HIRES Data" (2023). *UNLV Theses, Dissertations, Professional Papers, and Capstones*. 4718. <http://dx.doi.org/10.34917/36114743>

B.S. PHYSICS | STATE UNIVERSITY OF NEW YORK, COLLEGE AT ONEONTA | 2015

Minors: Astronomy, Mathematics

PROJECTS

CO-FOUNDER | PANDASTRACK

PYTHON, JAVA, BASH, DOCKER, KUBERNETES, HELM, ARTIFACTORY, CI/CD,

- A flexible, object-oriented python library for configuring, assessing, and deploying trackers.
- Leverages pandas accessor for assessment/analytics, a Java interface for live global scale data handling, and Helm charts for deployment flexibility.
- Used across all General Atomics-i3 portfolios for tracking and knowledge base development and deployment
- Includes version control and Artifactory deployment in CI/CD for PIP installation

CO-FOUNDER, TECH LEAD | BLUE-FLOW

JAVA, BASH, JSON, KUBERNETES, HELM, DOCKER, CI/CD

- A scalable, modular, and extensible Java-based Kalman-filter tracker
- Deployable via Kubernetes by way of Helm charts
- Includes version control and Artifactory integration for automated cloud deployment and utilities to assist in air-gapped environments

OWNER | EXOHAMMER

PYTHON, BASH

- A flexible object-oriented python library that discovers and characterize extrasolar planet by implementing time series analysis via bayesian statistical methods on Doppler and transit timing variation measurements
- Dependencies include numpy, matplotlib, pickle, easygui, datetime, os, emcee, astropy, ttvfast
- Generates easily interpreted plots and text files at user-defined intervals, serializes results for further analysis

OWNER | MUSICFFT

MATLAB, PYTHON

- An audio compressor using fast Fourier transform